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ABSTRACT

The volume contains 19 papers from the Fourth Annual Northern Virginia Conference on Gifted/Talented Education. Included are the following titles and authors: "A Statement on the National Commitment to Gifted Education" (R. Stafford); "Beyond Awareness into Practice" (F. Williams); "Fostering Independence and Creativity" (D. Treffinger); "Parents are Education Partners" (G. Ginsberg); "The Mentor and the Education of the Gifted and Talented" (B. Boston); "Personality Structure and Curricular Differentiation: A Synthesis in Gifted Education" (V. Ward and H. Jellen); "Curriculum for the Gifted: Pulling from Our Bag of Tricks to Meet Individual Needs" (L. Addison); "Group Counseling the Gifted" (S. Allan and D. Fox); "Creative Expression--Writing and Theatre Arts" (R. Norris); "Parent and Teacher Effectiveness Training as They Pertain to the Gifted" (M. Rourke); "Stretching Mental Muscles Through Social Studies" (B. Monroe); "Differential Strategies Allowing for Openness in Education" (F. Williams); "Developing the Higher Thought Processes" (D. Drake et al.); "Developing Work-Learning Opportunities for the Gifted" (C. Schindler); "The Key to Learning Motivation" (T. Woodall); "Student-Initiated and Student-Executed Curriculum: the SIU-100 Approach" (R. Magoon and H. Jellen); "The Identification of Resources for Individual Gifted Students in Grades 3-8" (D. Duboiss et al.); "Educating the Gifted at Plains--An Expanded Program" (R. Lehman); and "Career Exploration with Gifted and Talented Elementary Students" (N. Beach). (SBH)

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BEYOND AWARENESS

PROVIDING FOR THE GIFTED CHILD

March 23-24, 1979
Thomas Jefferson Intermediate School and Community Center
Arlington, Virginia

Edited by
Jeffrey H. Orloff

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. . . To all the people who made possible the passage of Public Law 95-561 "The Gifted and Talented Children's Education Act of 1978."

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J.H.O.

INTRODUCTION

This volume represents the highlights from the Fourth Annual Northern Virginia Conference on Gifted/Talented Education held in Arlington, Virginia on March 23-24, 1979. The theme of the conference, "Beyond Awareness: Providing for the Gifted Child," was chosen to emphasize the need for further study on the education of gifted and talented students. The papers included in this volume contain some of the most innovative thinking and instructional strategies available in the field today.

Robert T. Stafford, U.S. Senator from Vermont, states the challenge we all have. "We need to identify and to encourage our gifted and talented children. We need to train teachers to work with them effectively. More than a million of our children even today — and perhaps nearly twice that number — are being cheated because we haven't yet developed appropriate educational opportunities for them. We cannot afford to continue to waste the best of our talent."

I sincerely hope that by becoming increasingly aware of current trends and strategies in the education of the gifted, you will be able to go beyond awareness and, as stated by Frank Williams, into practice.

Falls Church, Virginia
September, 1979

Jeffrey H. Orloff

A STATEMENT ON THE NATIONAL COMMITMENT TO GIFTED EDUCATION

Hon. Robert T. Stafford

United States Senator
Vermont

I am delighted to be able to join you here today to express our mutual commitment to the national effort to provide educational opportunity that is appropriate to the needs of gifted and talented young people.

At stake is our ability to make available the proper kinds of learning experiences for young people of exceptional potential. We must succeed, not only to help these talented young citizens achieve their potential, but also to reap their full contributions for the benefit of society.

We need to identify and to encourage our gifted and talented children. We need to train teachers to work with them effectively. More than a million of our children even today--and perhaps nearly twice that number--are being cheated because we haven't yet developed appropriate educational opportunities for them. We cannot afford to continue to waste the best of our talent.

When the Marland Report was issued in 1972, only 10 states had even a single staff person each working even half-time in this field.

In 1974, the Gifted and Talented Program was created under the Special Projects Act. It provided demonstration projects to meet the special education needs of these special youngsters.

Just a year ago, in our Committee on Human Resources, we concluded that the country not only wanted to do more--but was ready to do more. We decided to graduate the program from the ranks of demonstration projects.

The new federal law--called the "Gifted and Talented Children's Education Act of 1978"--is designed to provide federal financial assistance to state and local education agencies, along with other private and public agencies and institutions. The goal is to improve programs for gifted youngsters.

Under the 1978 amendments, federal funds paid to the State Educational Agency can be spent only to plan, develop, operate and improve programs designed to identify the educational needs of gifted and talented children.

The programs and projects must be big enough, broad enough and good enough to hold reasonable promise of making substantial progress. The new law also requires the program to give appropriate consideration to the particular educational needs of disadvantaged gifted and talented children.

The Gifted and Talented Children amendments also provide for a new funding formula to support local programs. The law reserves 75 per cent of the federal money for distribution to the states.

The new law requires that the states pass through at least 90 per cent of the funds received to the local agencies, on the basis of competitive applications. The remaining 10 per cent may be used by the state educational agency for statewide planning, administration, technical assistance, and coordination.

When the federal appropriations for the Gifted and Talented Children's program reach $15 million, a state allocation formula based upon relative state population of school age children will be used for allotments to states.

Below that level, the Commissioner may vary the size of a state's grant, based upon the merits of its application. All states which file a completed application which fully meets the requirements of the law and which is approved by the Commissioner will receive a minimum grant of $50,000.

We on the Congressional authorizing committee agreed that this expanded program should be supported by considerably increased authorization. However, in this year of a tight federal budget, the Administration has not been as firm in its commitment, as witness its budget recommendations for the program.

A meager $3.8 million is hardly going to get the program off the ground. I am not encouraged that the Congressional appropriations process is going to provide any significant increase over the President's request for Fiscal Year 1980.

As a principal co-sponsor and one of the floor managers for last year's education legislation, I was particularly pleased that we have made this progress on the Congressional level without much dissent.

However, more success is needed with the Administration if we are going to continue to move forward with the program.

I am gratified that we have strengthened the program in many regards. I hope you who are involved with gifted and talented children will continue to exert pressure on Congress during its appropriation process for the additional funding.

I am also gratified to be here with you today, to see how many of you share our efforts to meet our nation's need to provide appropriate education for the gifted and talented child.

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BEYOND AWARENESS INTO PRACTICE

Frank E. Williams

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Salem, Oregon

Throughout the past five years during the current resurgence of education for the gifted many former theories of learning are being revived for implementing new programs. Requirements by funding agencies demand that those new programs for the gifted along with the talented and creative must be differentiated. Differentiated education means that something is done with identified and selected "gifted" students that is not already offered all other students in an on-going curriculum. For the sake of expediency educators of the gifted have scrambled to adopt and refine many existing models of learning which have been around for some time. Bloom's taxonomy (1956), Guilford's structure of intellect (1955), Parnes' creative problem solving and brainstorming (1954), Piaget's stage theory of intellectual development (1953), Rath's higher thinking processes (1966), Simon's values clarification (1966), Suchman's inquiry training (1966), Taylor's multiple talents (1968), and Williams' cognitive-affective interaction model with teaching strategies (1969) are the most popular revitalized delivery systems for present gifted programs.*

Some of the above mentioned models of learning were initially designed as theoretical research studies on child growth and development. None were ever conceived as purely learning procedures for gifted students, but were to provide knowledge about how all children learn. Four models were meant to be used as instructional techniques and curriculum development, but again for all students in school classrooms. Only one offers a complete diagnostic-instructional delivery system which includes teaching strategies for use across basic content areas to produce specific student outcomes with measurement and assessment instruments. This is Williams' model with accompanying materials.**

Down through the years such learning models and procedures have made significant contributions to education in general. It is assumed they will continue to provide effective educational programs for a special group of the gifted, talented and creative. By this assumption, however, educators are admitting what works well for all students should work equally as good for the gifted. What has happened is the new gifted movement had to borrow and adopt many of the earlier learning models and techniques initially designed for all of education. Because of this, gifted and talented education has become an excellent field test ground for models and practices heretofore never utilized in this manner.

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*Dates in parentheses indicate approximate year of initial publication discussing the theory and model.

**Williams, Frank E. A TOTAL CREATIVITY PROGRAM, kit of 11 components for teacher training and use in the classroom, Educational Technology Publications, Inc., Englewood Cliffs, New Jersey, 1972.

students. One is an attempt to satisfy current expanded dimensions of giftedness. The other is a reaffirmation by educators who are still asking how to simultaneously develop students' cognitive with affective processes.

Space and time here does not permit a complete discussion of either model. A brief overview of each is presented, and appropriate references are listed for readers not familiar with them to do their own in-depth study. Instead of exploring the functions of both models, I shall deal specifically with their classroom application. Two lesson ideas will be presented discussing activity types from Renzulli by teaching strategies from Williams. A critique of each lesson follows pointing out Renzulli types and Williams strategies as mainstreamed activities for all students, then move on into other types and strategies for use with more able and motivated students. The educational rationale here is that some parts of these lessons may be useful for all classrooms, while other parts should be reserved for special groups of students and/or in special classes.

Both the Renzulli and Williams models are analogous since they are morphology not taxonomy structures. That is, they are interactive rather than sequential hierarchies. Hence the double arrows between all three types of activities in the two dimensional Renzulli model; or the interaction between content, process, and strategy slabs of the three dimensional Williams model. Figure 1 shows the Renzulli model. Figure 2 presents the Williams model. Notice the interactive arrows between three types of activities on Renzulli. Compare this to the interaction between three dimensions of the Williams cube (D1 - D2 - and D3).

Figure 1

RENZULLI'S ENRICHMENT TRIAD MODEL

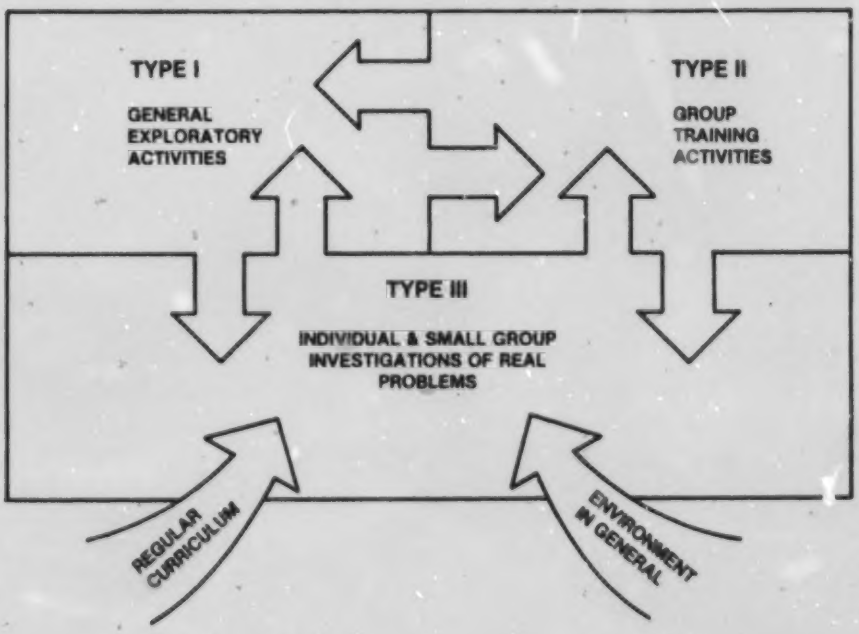
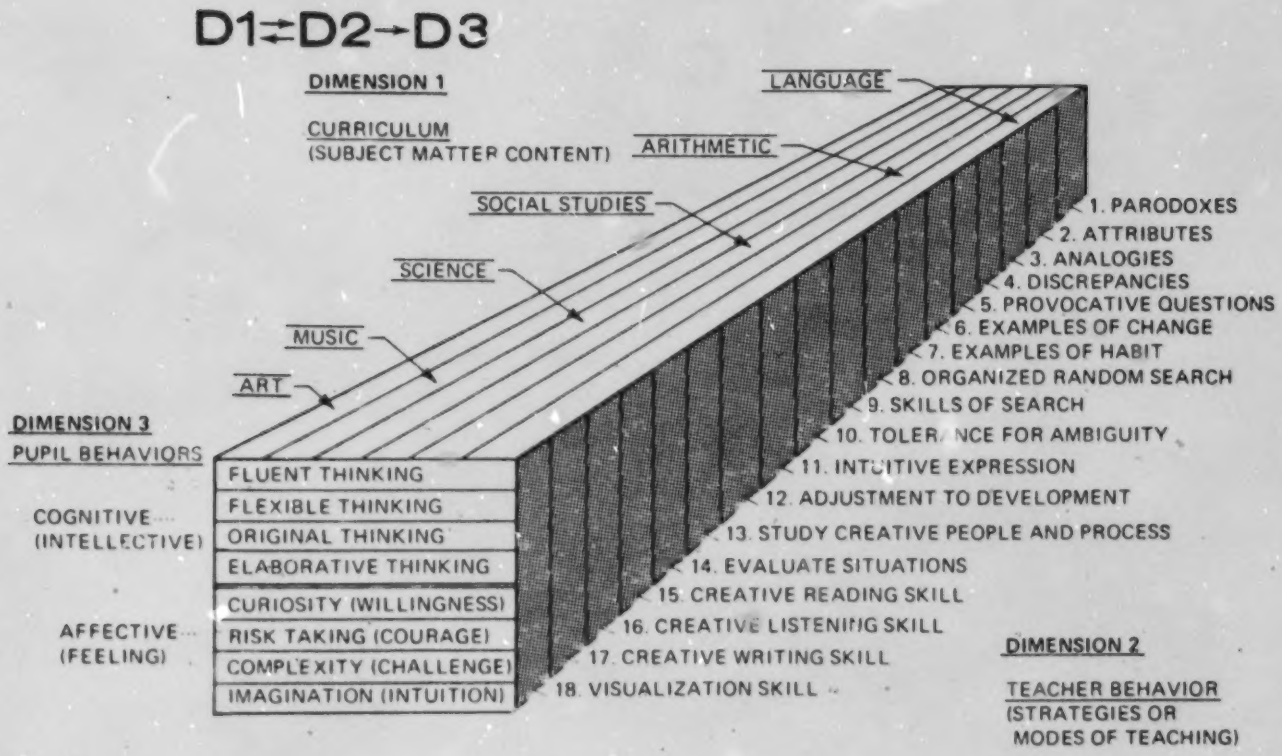


Figure 2
WILLIAMS MODEL

A Model for Implementing Cognitive-Affective Behaviors in the Classroom



Referring to Figure 1, Renzulli's enrichment triad consists of three types of student activities. Type I activities involve class explorations. Their purpose is to provoke interests and curiosity, providing entry experiences and data input. Field trips. library visitations, speakers, browsing and discussions are examples of Type I activities. Type II activities are training sequences for the purposeful development of thinking and feeling processes hopefully across content areas. Original thinking and risk taking might be two trainable processes in science or math. Brainstorming ideas and complexity of approaches about a social science topic would be Type II kinds of experiences for a whole class or group of students. Type III activities are usually follow-up from Type I or Type II, but needn't be. Here the emphasis is upon individual

involvement with task commitment to a definite production. This type of activity implies self-directed investigations of a real problem to the student. While Type I and Type II activities are presented and teacher directed, Type III activities are personal directed in a production capacity involving individual student absorption and perseverence. These separate the men from the boys, so to speak; the truly motivated from the casual learner. Type III activities are for students who can cope with complexity while being involved with the challenge to produce on their own.*

The Williams model as can be seen from Figure 2 is in cube form having three sides labeled dimensions. Dimension 1 is curriculum where six basic subject areas are listed. Dimension 2 includes eighteen strategies which teachers can use for presenting any of the six subject areas. Dimension 3 are student behaviors shown; four divergent-productive thinking as cognitive, and four divergent feeling or dispositional, motivational as affective factors. The "D" formula shown suggests curriculum content (D1) interacts with teaching strategies (D2) producing pupil outcomes (D3). The number of interactions possible by complete implementation of the model equals 864 (6 subjects x 18 strategies x 8 pupil processes). Thus, it is a complex model offering a great degree of flexibility within curriculum areas for teaching and learning. This model initially was not planned nor designed for gifted education, but has now been well adopted as a means for offering enriched curriculum for gifted, talented and creative students.**

Figure 3 lists the 18 strategies from Dimension 2 of the Williams model (Figure 2) rearranged by type activities from Renzulli's triad. You will see three strategies overlap between training and production activities.

Figure 3

Classification of Williams Strategies Across
Renzulli Type Activities

Type I Activities Using Exploration Strategies:

Paradoxes	---	Self-contradictory statement or observation
Attributes	---	Inherent properties, traits or characteristics
Analogies	--	Similarities or situations of likeness

---

*Renzulli, Joseph S. THE ENRICHMENT TRIAD MODEL, Creative Learning Press, Inc. Mansfield Center, Connecticut, 1977.

**Williams, Frank E. "Assessing Pupil-Teacher Behaviors Related to A Cognitive-Affective Teaching Model", in JOURNAL OF RESEARCH AND DEVELOPMENT IN EDUCATION, Vol. 4, No. 3, Spring, 1971. Athens, Georgia.

Figure 3 - Continued

Discrepancies	---	Unknown elements or missing links
Provocative Questions	---	Inquiries bringing forth exploration or discovery
Examples of Change	---	Exploring the dynamics of things by alterations, modifications or substitutions
Examples of Habit	---	Sensing rigidity and habit-bound thinking

Type II Activities Using Training Strategies:

Organized Random Search	---	Organized structure randomly leading to a production
Skills of Search	---	Skills of historical, descriptive or experimental search
Study Creative People-Process	---	Analyze traits and study process of eminent people
Evaluate Situations	---	Setting criteria, deciding, critical thinking
Creative Reading Skill	---	Idea generation through reading
Creative Listening Skill	---	Idea generation through listening
Creative Writing Skill	---	Self expression through writing
Visualization Skill	---	Expressing ideas in visual form

Type III Activities Using Production Strategies:

Tolerance for Ambiguity	---	Tolerating open-ended situations without forcing closure
Intuitive Expression	---	Sensing inward hunches and expressing emotional feelings
Adjustment to Development	---	Developing from rather than adjusting to experiences of situations
Evaluate Situations	---	Deciding upon solutions and productions by consequences and implications

Figure 3 - Continued

Creative Writing Skill	---	Self expression through written production
Visualization Skill	---	Expressing ideas in visual form

Let me now cite an actual learning experience, a lesson idea which orchestrates both the Renzulli and Williams models. This is an ungraded language arts series of activities showing teachers how to work right through the three Renzulli types in numerical order using Williams' strategies that could be presented in a regular classroom for all students. Triad types and teaching strategies shall be identified and inserted in parentheses as the lesson is described followed by a critique.

By a short visit to the school library, a teacher should obtain a collection of different kinds of book or dust jackets. These are usually available from librarians who remove and file them in cabinets or drawers. Selected jackets should have intriguing pictures. These are to stimulate a visual, non-verbal data bank providing a student exploratory support system. Present around 8 to 10 of these, depending on class size, asking the class to compare what they perceive is shown on the jacket in pictorial form to the title and subject of the book. Choose some where there is a strong agreement, and a few where little agreement exists between jacket picture and subject of book. Be sure to include various kinds of book covers from a telephone directory or mail order catalog. The purpose is to have a class explore similarities between what is shown by the picture on the jacket to the name and subject of the book. Lively discussion will follow (Renzulli type I activity using Williams' strategies attributes, analogies and visualization skill).

Save some of the jackets not shown and cover up all print using masking tape and paper leaving only the exposed picture showing. Divide the class into smaller work groups, four to five students each. Give one covered up book jacket to each group asking students to do the following four training activities. Allow around 15 to 20 minutes per activity. Have groups first brainstorm guesses of what the book might be about, not title but subject. This elicits divergent thinking and curiosity training. Stop group brainstorming asking groups to count the number of ideas on their list which is fluent thinking. Have each group report their fluency scores before the whole class. Next ask each group to decide among themselves upon a criterion to use in selecting one topic from their brainstorm list, that topic they really think the book is about. Setting criteria and deciding is training in convergent and critical thinking. After a topic or subject for their book jacket has been chosen, ask groups to now create a clever and unusual title for their book. Creating a title that no one else would ever think of is training in original thinking and imagination. The last and fourth task is

to have each group report to the class criteria used in selecting a topic and an original title for their book jacket. As groups report, show their jacket around to the other students. Upon returning the jacket to the group, tell them they may remove the tape and paper if they want to verify the real title and topic of the book. Curiosity and anticipation is now at its height as groups compare and contrast their perceptions of the jacket's picture to an actual subject and title. Some groups will be pleased if they are "right on", others will be dissatisfied if they are not even close. Most will rationalize why they are right or wrong. Discourage this, telling them it is more important to get caught up in exploring the thinking and feeling processes during these activities than whether they guess right or wrong. Such a series of small group experiences has deliberately involved students in training for various cognitive and affective processes (Renzulli type II activity using Williams strategies of attributes, analogies, organized-random search, evaluate situations and visualization skill).

At this time there will invaribly be some students highly motivated with their book subject, title and jacket, to the degree they will wish to organize a plan to write their own book. The teacher should strongly propose such a production for those who so desire, and genuinely attempt to help these young authors or turn them over to a mentor in the school who could guide such written production. They may want to use the jacket design, subject and title arrived at during the past training activities as a group, or delve into an individual library research project on their own. As a result of the exploratory and training experiences using a partially covered up book jacket, there will likely emerge a few students seeking the challenge with commitment to writing a book (Renzulli type III applying Williams strategies adjustment to development, tolerance for ambiguity, evaluate situations and creative writing skill).

A teacher should enthusiastically suggest that those interested might like trying to write a "Table of Contents" for their book as he or she offers to help. Those students desiring to move in this direction should then be encouraged to start designing an outline for the first chapter of their book. You might be amazed over those who will take up such a project, for at that time they become the M-A-L'ers (More Able Learners). Able in terms of desire to go beyond exploring and training exercises into a real production of their own. Invariably some who will be challenged by assuming a task commitment for writing a book may not be in your gifted group! Don't be surprised. Likewise, some of your gifted may be completely turned off with book writing. In fact, there will be several who are not academic achievers possessing outstanding writing skills, but boy are they willing to try. This can be over half the battle for pursuing a Type III activity. If this occurs, now is the time to set up a student mentor program asking a bright student in your class or school who can write to help a motivated student aspiring to write. One has prior knowledge and skills, the other a desirable attitude to want to produce and, who knows, future potential as a writer. What a team, as skill and desire begin to rub off on each other.

Of course there will be a few who will definitely want and need to write on their own. This is the time to set up individualized projects

with clear expectations that something of excellence will be produced from such effort. Then of course will be a majority group neither inclined to author a book nor do anything more. For this group, off with another approach such as the following.

This is an ungraded lesson idea in mathematics for a whole class beginning with training type II activities from Renzulli's Triad. A teacher should randomly select five objects in the classroom for measurement. Length of a room, height of ceiling, area of table, volume of box, and circumference of opening in waste basket are some suggestions. Divide the class into smaller work groups, three to four students, asking each group to choose a recorder. This person records the group's measurements. Students should be told there will be two tasks for them to become involved in both requiring group activity.

The first task is for each group to estimate or predict measurements of the five selected items in the room without use of any specific measuring instrument. No rulers are allowed at this time. Only improvizations are accepted, and groups are told they are to create clever ways to predict measurement of the five things. Watch groups and observe what happens (divergent productions). If at this moment students do not know how to obtain area, volume, or circumference measurements; now is the perfect time for a teacher to step in and present such facts.

After all groups have guessed by improvization some ways for predicting the five measurements and have them recorded, now pass out a yard or meter stick to each group. The second task is to arrive at actual measurements of the five things in some definite units of measure (convergent productions). Two sets of recordings have now been obtained, the first by improvized predictions, the second by actual measure. This gives each group two types of data to work on further.

The task at hand now is for each group to design some kind of graphic system representing a comparison between improvized guesses and absolute measures. Suggestions might be use of bar graphs, line or pie charts, or combinations thereof. If the class has had no training in graphing techniques, now is the time to present such information. Sophistication of unit conversion and graphic representation of the two sets of comparative data will depend on prior knowledge, experience and grade level of the groups (Renzulli type II training activities using two Williams strategies organized random search and evaluate situations cuing for both divergent and convergent productive thinking).

Students motivated by such training activity could be challenged to move on into type III production activities. Some may become intrigued with ideas for designing an original graphic system by comparing subjectively predicted data arrived at under improvized conditions against objectively accurate data arrived at under measured conditions. A few most inquisitive might wonder how to arrive at area or volume of an irregularly shaped object such as the trapezoidal form of a waste basket. At this time they should be introduced to the principles of calculus and, if they so desire, allowed to

pursue work in higher mathematics as an individual or with a small accelerated group. (Renzulli type III activity applying Williams strategy adjustment to development.)

Movement into type I exploratory activities or type III individual projects are possible after results of training effects have occurred from type II entry activities just discussed. But a teacher must be flexible enough to shift the class from training into exploratory activities for those so inclined, while at the same time allowing others who are ready to move into independent productions. You see how important it is for teaching and learning to remain pliable and creative so that every student may move in any direction on the Renzulli Triad, rather than expecting the whole class to remain together at the same pace on the same type activity.

For those teachers desiring to continue on with the measurement theme taken from the math training exercises just presented, here is a way to move students into exploration type I activities by gathering different kinds of data banks or support systems. Have the whole class brainstorm together a long list of different kinds of things that are measurable (Renzulli type I activity using Williams strategy attribute listing cuing flexible thinking). Place the word "Measurables" in large letters on a chalkboard and proceed to record students' ideas as offered. Remember during brainstorming no discussion is necessary, critical judgment is never allowed, quantity or flow of ideas are desirable and free association by hitchhiking on other's ideas should be encouraged. Allow around 15 to 20 minutes for this activity, or until spontaneity ceases. Then ask the class to classify their list realizing that it consists of tangible, inanimate things many related to math-science areas. A count of yielding fluency and flexibility should be taken.

Now to further elicit flexibility, ask the class to shift their exploratory behavior by brainstorming another list of things that are immeasurable. Again at the top of the chalkboard place the word "Immeasurables" in large print and abiding by the same brainstorming rules derive another long list. This is harder, and may require some cues from the teacher particularly in shifting categories of thinking. Some cue words by the teacher such as; universe, infinity, love, hate, etc. can help. After approximately the same length of time as for the first "measurables" brainstormed list, ask the class to compare and discuss differences between both lists (Williams strategy exploring analogies). Usually the second "immeasurables" list will consist of intangible, animate things associated with people and feelings. Now ask students to select one of the immeasurable things from the second list and using their imaginations create some way for measuring this quantity. "How can you measure love, hate, fear, boredom?" (Williams strategy provocative questions.) This will immediately provide some students with that intuitive bridge, or inward leap, that can take them off into an exciting type III project on their own. Those not willing to take such a leap may have to be presented other type I or II activities until that connection or linkage is found by each student which leads him or her into some type of self-directed learning experience.

The two cited lesson ideas discussed here have been intended to show teachers how the Renzulli Triad can be effectively implemented for all students in any classroom by use of the Williams strategies. Enriched learning experiences will result for all students. Individualized, self-directive and creative learning experiences for those able and willing to move in this direction can result for some who at that time with that kind of input, gifted or not, now become the more able learners.

In summary, to some in the current gifted movement the philosophy presented here may be interpreted as bastardizing gifted education. This certainly is not intended, but as I have suggested before the crux of issues in education today is how best can we help develop <u>total human potential</u> among all in school classrooms. This is and still remains our democratic ideal, and hopefully what are found to be good practices for the gifted must still be translated into better education for most students.

3

FOSTERING INDEPENDENCE AND CREATIVITY

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This presentation will address four major issues relating to the development of independence and creativity among gifted and talented students. These are:

1. Why should we be concerned with independence and creativity?
2. What is involved in independent, creative learning?
3. What are some obstacles and cautions related to creative learning?
4. What can we do to encourage independent, creative learning?

Inportance of Independence and Creativity

It is probably quite likely that most people working in gifted education today, or participating actively in professional organizations and conferences, do not need too much convincing concerning the importance of independence and creativity. Nonetheless, this seems to be a valuable starting point, since "Why?" is the kind of question you must often be able to answer to the satisfaction of parents, administrators, and other teachers. There are four major reasons for educators to be concerned with independent, creative learning for gifted and talented students (Treffinger, 1979).

Increased Effectiveness. Independence and creativity help students to be more effective, even when adults are not around. We must remember that students will have to deal on their own with many more problems and chalienges in their lives than those we provide during the school years. To the extent that school can be viewed as preparation for responsible adult living, then, it is important for us to enable students to learn to respond effectively, with imagination and originality, when confronted with such challenges.

Possibilities for Solving Future Problems. There is little doubt that life in our contemporary world involves many complex problems, for which creative solutions would certainly be welcome; inflation and economic crises, energy, environmental quality, and interpersonal or international relations are but a few of those challenges. However, it is also important for us to recognize that students in our schools today may as adults confront entirely new problems we are now unable to anticipate! How many of us would have anticipated the present set of problems in our world when we were students twenty-five years ago? How many new products and experiences do students today accept as commonplace, although they were unimagined in our childhood days? We must recognize that we may not only be unable to give students all the information they will need to solve problems we now recognize, but that they may need to be able to deal with a completely different set of problems!

Powerful Consequences for Living. When people are asked to describe their best learning experiences - those that have had the greatest and most significant impact upon them in their daily lives - it is very common for them to describe experiences which are their "closest encounters" with independent, creative learning. Many people have thus discovered that creativity is not merely a rare ("one in a million") stroke of genius that leads to some world-shaking consequences. Creative learning exists within the reach of many people, in their practical, everyday experiences. When students have opportunities to reach beyond knowledge acquisition and recall, and to grow creatively in their own preferred areas and directions, learning often results which will have strong and lasting influence on their lives.

Satisfaction and Joy. Independent, creative learning is also a source of great personal satisfaction and joy for those who are involved in it. Even though the things we do may be very demanding, and often very difficult, creative learning is not unpleasant. Too often, we seem erroneously to assume that, if learning something isn't sufficiently unpleasant, it can't be very important!

Nature of Independent, Creative Learning

A second major concern involves the question, "What do we mean by independent, creative learning?" This question requires discussion because both of its key concepts - independence and creativity - are subject to a great deal of confusion of meaning or misunderstanding.

Independence. Independence is being used here in a very specific way; it is not just "doing whatever you want to do, whenever you want to do it." Instead, independence is concerned with effective, responsible autonomy, in which students learn to manage and direct their own behavior. Five general goals for independent, self-directed learning were described by Treffinger and Barton (1979):

1. Learning to function more effectively in one's total environment (classroom, school, home, and community) with peers, teachers, parents, and other adults;

2. Learning to make choices and decisions based on self-knowledge of needs and interests;

3. Learning to assume responsibility for choices and decisions by completing all activities at a satisfactory level of achievement and in an acceptable time frame;

4. Learning to define problems and to determine a course of action for their solution;

5. Learning to evaluate one's own work and be able to answer the question, "How well can I do what I want to do?"

The independent person, then, is not one who blindly yields to pressures (real or perceived) to behave in a certain way - nor one who blindly rejects social behavior. Instead, the independent, self-directed learner analyzes the situation, the demands, and the consequences of various actions, and behaves with autonomy blended with effectiveness and responsibility (Crtuchfield, 1962).

Creative Learning. Creative learning, as defined by Torrance and Myers (1971, p. 22) involves:

> becoming sensitive to or aware of problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; bringing together available information, defining the difficulty or identifying the missing element; searching for solutions, making guesses or formulating hypotheses about the deficiencies; testing and retesting these hypotheses, and modifying and retesting them; perfecting them; and finally communicating the results.

Instructionally, creative learning seems to involve three stages, which might be described as divergent functions, complex thinking and feeling processes, and involvement in real problems or challenges (Treffinger and Johnston, 1979; Treffinger, 1979). Each of these stages is comprised of both cognitive and affective dimensions.

The Divergent Functions stage involves such cognitive operations as fluency, flexibility, originality, and elaboration. In the affective domain, it involves such factors as willingness to respond, openness to experience, sensitivity to problems, and tolerance of ambiguity. Complex Thinking and Feeling Processes (Stage Two) include the more complex levels of Bloom's (1956) Taxonomy (such as application, analysis, and synthesis), use of metaphors, analogies, and morphological models. In the affective domain, it involves becoming open to complex feelings and concerns, motivation for personal growth, heightened awareness, and the ability to deal effectively with stresses, tensions, and conflict. Involvement in Real Problems and Challenges (Stage Three) emphasizes the person's role as manager and director of learning, becoming a producer of knowledge, and management of one's own resources. In the Affective Domain, it involves progress towards self-actualization (Maslow, 1959), internalization of professional values, and commitment to a creative, productive life style.

The exciting challenge of dealing with gifted and talented students is that they can readily propel their activities and interests along the continuum from Stage One through Stage Three. They strive for intense involvement in creative learning, dealing with personally meaningful problems or challenges. They are not content merely to do "exercises or activities" although, unfortunately, many school programs comprise mostly Stage One or Stage Two experiences.

Some Obstacles and Cautions

Thus we are led directly to our third concern. There are some dangers confronting us in promoting independent, creative learning for gifted and talented students. Too often, we want our students to be independent, within the curriculum we define; creative, but not so original as to be threatening; and adventurous, within the boundaries we've established. We want students who are "gifted, but nice." We often seem to want students who will be content to be independent and creative "every Tuesday afternoon from 4:00 to 6:00 PM," when they can be led to the "gifted resource room," where they will do the nice, safe little exercises that make up "The Gifted Curriculum."

The cafeat for us, then, is that we must recognize that creative independent learning by gifted and talented students may lead us in directions we cannot completely control. It may demand that we re-examine and modify our educational methods, going beyond simple efforts to "tinker" with the curriculum by offering an array of bland activities to keep students busy.

Independent, creative learning may cause students to see problems that we would just as soon not notice; to explore possibilities we may find beyond our comprehension; to examine alternatives that make us uncomfortable; and to follow courses of actions which lead to transformations in our expectations, standards, values, and behavior.

Our hope for an educational legacy for our gifted and talented students, from the vantage point afforded by our concern for independent, creative learning, is not merely for curricular mastery and complacent obedience. Instead, it is for competence and creative growth. These concerns are not mutually exclusive, of course. But we cannot guarantee that creative inquiry will lead students into learning that we can easily predict and control. Our best hope, and I believe that it is justifiable, is that the blend of competence and creativity will result in constructive personal and social growth and action.

Encouraging Creativity and Independence

Of course, many workshops and graduate seminars might be addressed to the topic, "What can we do in the Classroom to encourage independent, creative learning?"

Some general guidelines for parents and teachers (Treffinger, 1978) included the following suggestions:

1. Remember that telling a child to be independent may not help the child learn how to do it; admonitions are inadequate.

2. Don't make unwarranted assumptions.

3. Don't smother self-direction by doing for students things they can do (or can learn to do) for themselves.

4. Seek to develop an attitude of openness and encouragement for students' independent, creative efforts.

5. Learn to defer judgment, and to use specific criteria when evaluation is appropriate.

6. Emphasize the continuity of problems and challenges.

7. Provide systematic training in creative problem-solving and in research and inquiry skills.

8. Practice what you teach by applying it to real problems at home or in school.

9. Be alert to possible audiences and outlets for students' work.

10. Expect growth to be gradual; independence and creativity will not happen "all at once."

11. Create! Be a model of creative, self-directed learning in your own life.

In addition to these general guidelines, there are numerous other resources available to assist you in using many specific methods and techniques, as well as to guide you in selecting and using commercially prepared curriculum resources (Callahan, 1978; Feldhusen and Treffinger, 1977; Noller, Treffinger and Houseman, 1979; Treffinger, 1979; Treffinger, Hohn and Feldhusen, 1979).

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PARENTS ARE EDUCATION PARTNERS

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The Day of the Parent is here.

Everything else has been taken out of the budget, is unconstitutional, steps on minority feet or is fattening. It has been a long time coming, but parents are finally going public. The time is finally now.

All over the country, educators are opening school doors wide to welcome parents as legitimate partners in the education of their children. Finally, we are going to do it all together now.

Have you ever thought about the fact that parents are the largest single group of people anywhere? That they outnumber educators by far? That most educators are parents or grandparents themselves?

Parents are indeed our largest public - and as such they are education's largest source of power. Parents, through their children, are education's producers and consumers both. Without them, education is out of business.

Each student, gifted or otherwise, comes with at least one and usually two parents who are that student's unfailing ally and advocate. Parents are a tremendous source of support and strength - or they can be formidable opponents. The fact that this session has been specially planned for parents shows that education in finally recognizing the many contributions parents can make to the educational process.

Parents of gifted children are particularly valuable education partners. As a group, they are usually aware of the value of quality education, and they are willing to back this concern with their own time and effort; they are often bright themselves; they very much appreciate it when they are invited into the school to participate in some capacity; they have fascinating professions, avocations and hobbies which they love to share; and - almost unheard of these days - they are free. Who said bargains were dead?

Parents make up boards of education - the people who hire and fire educators. They set educational policy; they vote in programs for the gifted or have other priorities.

I guess education for the gifted today is about where education for the handicapped was ten/fifteen years ago, and - if you remember - parents made the difference then. Parents of handicapped children got together and insisted that their children be given the opportunity to learn all they were able to learn - however much or little that may have been.

I suggest to you now that parents of gifted and talented children want the same: an opportunity for their children to learn all they are able to learn. That, to my mind is what education is all about: helping children learn as much as they can. That is all parents of gifted children want for their children - no more, but certainly no less.

We have been conditioned to think that handicapped children need help, and that gifted children can take care of themselves - little geniusses that they are. Let's get to work and change the ridiculous notion that there is a whole group of children that does not need the help and support of adults... that gifted children can take charge of their own education because they are "so smart already." As parents let us help educators work resolutely and vigorously for attitudinal change toward gifted children. Let us work for recognition that they too have special learning needs and learning styles.

As education partners, parents have both rights and responsibilities.

I believe that parental responsibilities are clear-cut and simple: parents owe it to their children to work supportively with educators so that they and all other gifted children will get that precious opportunity to learn all they can. Parents owe public schools all the allegiance they can muster because, in a way, the public schools are like the telephone company: there is no competition to go to if they are dissatisfied with the services. Parents owe it to their children not to waste time and energies on negative attitudes and the telling of horror stories. They have never accomplished anything. Solid parental support can do more than move mountains, it can move bureaucracies.

What are parental rights in this partnership?

I believe that parents of gifted children have these rights when working with their children's edcators:

- The right to expect their children's educators to recognize that gifted children learn earlier, better, faster and often differently than most other children.

- The right to expect an education for their children which gives them the opportunity to learn all they are able to learn.

- The right to be included in the school's educational planning for their gifted children.

- The right to be listened to when parents have special concerns. Gifted children's greater potential does not mean that they don't need all the help and support all chidlren need.

- The right to be wrong. In the absence of public acceptance of giftedness, parents are often alone when making decisions for their gifted children. It is difficult to make choices without assistance or special training.

- The right to an environment of acceptance and pride in what gifted children can do for society and themselves as adults.

So, mindful of rights and responsibilities of parents with gifted children, let there be a resolution here and now to accept all children as

they are - be they gifted, chubby, curly-headed or hot tempered. Let there be acceptance of individual differences and pride that - like snowflakes - there are no two children alike in the entire universe. Let us hope that this pride and acceptance will help gifted children accept themselves as unique and very special small human beings.

So, if you are fortunate to have a youngster who does things a little earlier, a little better, a little faster, and probably a little differently from most other children... who runs you ragged with endless questions... who does not seem to need any sleep - certainly less than you do - and who winds you around a tiny finger in the process... take heart, take vitamins and catnaps and ENJOY! How I wish that I had not taken my own two children so very seriously! I worried as though it was my fulltime employment, and here are some of my concerns:

- Would I be a good enough parent?
- Would I be able to challenge this great (and intimidating) potential?
- Would my children have any friends?
- Would the teacher be angry when instead of laboring over the sum total of one apple and another apple, they could multiply faster than their mother? And worse: faster than their teacher?
- Would their father, who wanted "normal" children, make his peace with them?
- Would they be bored in school?
- Would I be able to help when they rebelled against inappropriate education?
- Would they get a library card when they read so well instead of laboring to See Tommy Run?
- And later: would they be permitted to take out "grown-up" books instead of getting on the waiting list for the Hardy Boys?
- Would I be able to help them when they pretended not to know in order to gain acceptance?

Parents of gifted children are familiar with these questions and many more. They even know some of the answers because they are living them by trial and error and a lot of finger crossing.

Everybody wants their children to be happy and do well in school. Nobody, least of all the children themselves, wants them to be any different. Yet gifted children are different, at least in some ways some of the time - and it is this difference that has brought us together. Parents and educators

have come together to address this difference which sometimes becomes a problem. But when you consider the nature of the problem, is there another problem you would rather have?

With the 20/20 vision of hindsight and the survival skills developed when I raised my own two children, I would like to offer some of the fruits of my experience. I have suggestions which may help at home, and I have suggestions for advocating appropriate education in school - all for parents of gifted children. Many of these hints are just plain common sense for all children, but I think they are particularly appropriate for gifted children and the ways in which they are different.

Gifted children are children first and gifted second, and let's not forget that - ever. It may be embarrasing to have to admit that you don't know (and care less) whether Brontosaurus was a plant eater or a meat eater, it may be unsettling to live with a belly-button high encyclopedia that multiplies faster than you - just remember that your gifted child has only lived a short number of years. The sum total of his life experience can only be that of his chronological age. Only expectations appropriate for that age should be placed on those young shoulders. Parents are wiser, older and more experienced than that small person who has taught himself to read on the book on which he must sit in order to reach the table.

Don't compare a gifted child to anybody. It is obviously unfair to whoever comes off second best, but it is equally unfair to the gifted one because that comparison planes on those slender shoulders the heavy burden to be like all the time - and nobody wants to be any which way all the time. That kind of halo makes for very bad headaches.

Praise your gifted child because she needs all the encouragement she can get. Praise her for the wonderful things she does, and - if the experiment does not work out and the huge tower of blocks comes tumbling down - praise her particularly for trying. Praise her because you want her to try and try and try again. Inquiring minds must take intellectual risks, and risk taking needs to be supported and praised.

In school, peer pressure to conform - as opposed to achieve - is very strong. Gifted children often experience this pressure as a demand to underachieve. Wise parents find opportunities for praise to help their children appreciate individual differences, stimulate originality and creativity, and to take pride in good school work.

Short but oh so important: Education is expensive. Start saving now.

Ask yourself what you are willing NOT to do for your gifted child. Let them do for themselves what they say they can do; they probably know. And if their judgment proves faulty, that is valuable learning too. These children are our future leaders, and they are eager and able to assume early responsibility. Let them be independent - in action and in spirit.

Let them specialize early if they want to. You may not enjoy living with dinosaurs by the year... talking about, eating with, tripping over, acting like and dreaming about these great big ugly beasts that I learned to hate during two endless years, but there are fringe benefits that may not be immediately apparent when you give houseroom to huge rocket models and elusive pregnant white mice. Such fringe benefits might be:

- Learning how to get the most out of the library;

- Learning how to do research;

- Learning to keep notes and records, and

- Even keeping some kind of order in that disaster area upstairs with the underwear factory under the bed - after I had to learn that neatness does not always count. He could always find what he was looking for.

Encourage originality and creativity with every dripping masterpiece that comes home from school. Praise it for being "the only one like it in the whole world" or for having "the most unusual shade of blue ever" but - please! - don't ask what it is. "Tell me about it" will enlighten you as often as not. You can always ask her to put it up on the refrigerator and get yourself off the hook if you still don't know which way is "up." Whatever you do, encourage pride in original work and new thoughts.

Listen to your gifted child - at least some of the time. The dog may be scratching at the door bent on an urgent mission, you are late for a dental appointment, the doorbell is ringing, and you have a headache. Please try and listen when you can because the question will probably never be asked again. And if enough questions go unrecognized, the urge to ask... the need to know... the craving for knowledge may disappear, and an inquiring mind has been lost for ever. The one thing we can all give our children is our undivided attention - at least some of the time.

Consider the quality of time instead of quantity of time you are able to spend with your child, if you are one of those very busy people. In our house, the first ten minutes after dinner belonged to my daughter, and the first ten minutes after the dishes were done belonged to my son - come locusts or deluge. It really helped when I had to say "I am sorry I cannot stop now, but we will talk about it after dinner when nothing can disturb us."

Discipline is necessary for a smooth and harmonious family life. It comes in the same shape for all brothers and sisters, and giftedness is no excuse for unacceptable behavior. "Dinner at six" means everybody.

Be tolerant of new ideas. Accept weird concepts and strange notions as worthy of further investigation. Welcome creative ideas because they are the stuff the future is made of. People used to think the world was flat, too.

Help your gifted children make choices. Their greater potential enables them to see more alternatives. Such an embarrassment of riches can present a predicament of not knowing in which direction to pursue gifts and talents. Guide them gently so that they can arrive at their own solutions.

Gifted children don't have to be gainfully employed every waking minute. They are creative children, and it is impossible to be creative between 5:30 and 6:00 PM if that is the only unscheduled time of day. There should be time to day-dream, to do baby things, to waste time - the unknown luxury of adult life and to commit the ultimate sin of lying on an unmade bed to stare at the ceiling. How do you know what they are thinking about? They may be spending the most productive time of the day - thinking like that.

Another reason for not overscheduling children is that it prevents them from learning how to manage their own time, and that is an important skill for future college students and problem solvers.

Social-emotional development takes time, and with gifted children - who often have their nose in a book instead of their hands around a baseball bat - it may take longer than their intellectual development. They may find themselves one age emotionally, another chronologically, and still another intellectually. Help and support them when they become impatient with this discrepancy. They know they are different, but they don't understand why.

Accept their choice of friends, as they use a little creative problem solving to find their social, chronological and intellectual peers in diverse age groups.

Don't expect your gifed children to live up to your own unfulfilled expectations. I dreamt of "my son, the doctor." Now I am proud to be the mother of a physicist. My daughter, the poet, has applied to med school.

Remember that there is a fine line between encouraging and pushing, and that elusive line makes the difference between a happy and productive youngster and an unfulfilled, underachieving child.

There are times to reach out a helping hand, and there are times to get out of the way. Knowing the difference makes you a very gifted parent indeed.

Parents of gifted children are people too. They need all the guidance they can get in understanding the special needs of their children - without feeling inferior or jealous. It is not easy to be the parent of a gifted child.

As a parent of a gifted child, you are not alone. Look around you. At first, most parents of gifted children, particularly if the giftedness causes problems, feel that their situation is unique. Remember that the nation's 2½ million gifted and talented children all have parents and that most of them feel as you do.

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Some of these parents live in your town and have children in your school. You might ask for them in your child's school, you could post a notice voicing your concerns in your library, or you could write a letter to your local newspaper inviting responses. You will hear from other parents, and your efforts on behalf of your child will be more effective if you are part of a group. Most of all, you will feel better, knowing that others feel as you do.

So much for home hints. Now I would like to offer some suggestions on how to support your child's school in its efforts to provide for the special learning needs and styles of gifted children like yours.

Examine your own attitudes first. Schools are like relatives: for better or worse, we cannot exchange them for a different lot. If you are angry, frustrated and feel like telling them off once and for all, it is a good day to stay home and look at your attitudes. Putting the other guy on the defensive makes for an exciting fantasy life, but it will not accomplish your purpose, which is getting an appropriate education for your gifted child. Of necessity, your approach must be supportive, and it must demonstrate your genuine concern for quality education for ALL children.

Your child's education depends on your ability to work with the people who work with your child. I consider that so important that I am going to state it again: Your child's education depends on your ability to work with the people who work with your child.

Get all the information about gifted and talented children and their education that you can lay your hands on. If your library does not carry books on the subject, request that they be ordered so that you and others can inform themselves. Ask to read books on education of the gifted from your school's professional library. That may have the fringe benefit of causing your school to order them. Write to the U.S. Office of Education of the Gifted in Washington and its counterpart in your state. Find out which legislators - state and federal - are responsive to your interests. Get to know the chairpersons of the special education committees of professional organizations and the PTA - usually there is no special committee for the gifted.

Start communicating. The information you gather will not only be helpful to you and your child, it will be invaluable to the Committee for Education of Gifted and Talented Students on which you will hopefully serve in your school.

Do anything and everything you can do to keep the issue of educating gifted children in front of the public. People don't move unless they are pushed. Keep pushing!

Be a welcome person in your child's school. Be a class mother or father, judge sports events, organize a book fair, bake cookies, share your collections and hobbies with your child's class, help with school plays... do anything and everything that will establish you firmly as a friend of the school. It will be time and effort well spent when you make an appointment with the principal to discuss a special program for your own gifted child.

Know your child's teachers because you have valuable information to exchange. Your child at home may behave very differently at school. If your third grader reads the New York Times for breakfast but does not complete reading assignments, parent and teacher need to get together.

Be aware of the economy of time. A school career may appear to stretch ahead endlessly like a summer vacation - which is over only too soon. The years a gifted youngster has in school are limited and should not be spent marking time and waiting for others to catch up.

Help your child's school by identifying for them resources in the private sector that will enrich and imporve learning for all students. There are untapped resources in terms of people, places and things - and sometimes even money. Every business, industry, service organization, labor union, foundation, or professional group has education as a priority. All these groups will be pleased to be asked to involve themselves with education; they are eager to help and ask nothing in return. Be a match-maker or broker for the school, particularly these days when the dollar is shrinking and budgets are tighter.

Be sure of your information before suggesting changes - be it as an individual or as a group. You may feel certain your child is gifted, based on your understanding of giftedness and your observations, but your school may have adopted other definitions of giftedness and may have different plans for dealing with them.

We need to remember that educators are doing their best under conditions that are often less than ideal. It has to be said that administrators and teachers alike often lack the special training required for defensible programs for the gifted simply because it is not available in their particular area.

The most constructive way of triggering change might be to offer your help to work with a committee of educators to study whether your concerns are justified and, if they are, how improvements might be brought about.

Become a letter writer. Even if this is the year your child is stuck with the wrong teacher - and all children struggle through at least one such year - the day will come when your youngster will come home from school with something good to report - even if it is only a fun time during recess. Now is the time to sit down and write a thank-you note to that teacher - "I just thought you might like to know .... thank you." Next time you come to the school wishing you could swing a baseball bat instead of a pocketbook, your reception will be more friendly - and you will be heard. Chances are that this teacher does not get many thank-you notes and will remember yours with appreciation. And while you are writing, drop a nice note to the principal, too. Most administrators' mail from parents has to do with problems, and your thank-you note will be remembered.

Help your gifted child get study skills, typing, and speed reading instruction in school. Too often educators consider these courses unnecessary for good students. Yet, when you think about it, our gifted children probably stay in school one way or another longer than most students. They will be required at times to read a book a day, and they turn into term paper factories twice a year. They, more than any other school population, need to know how to organize their work efficiently, how to read quickly and comprehend well, and how to do research - and typed term papers are often graded one grade higher than hand written ones automatically.

Be persistent; polite, but oh so persistent. The wheel that squeaks the loudest gets the grease, so keep squeaking until everybody understands that you are not going to give up. Eventually people around you will realize that you want for your gifted children - and others like them - no more than what other children are getting: the precious opportunity to learn all they are able to learn. It worked that way with parents of handicapped children. The time of the gifted is now.

If your school functions with a local board of education, run for the board and win. It is a lot of hard work and late hours, but you will be right in the middle of policy making decisions. You only need a majority to get your ideas across; you don't have to "sell" every board member.

I believe that all people fall into three groups: first are your friends. You know who they are, and you don't spend any time with them because they are already on your side. Then there are your enemies: those miserable, stubborn people who will never see it your way and recognize the special needs of gifted children. I suggest to you that you save your precious time and don't try. You have more important things to do and it won't work anyway. Your work lies with the large, uncommitted middle group that is sitting on the fence, waiting to be convinced. I maintain that you can raise a majority for just about anything from your friends and that unknown middle group. Try it!

De-personalize your efforts on behalf of gifted children whenever possible. A school administrator is much more likely to be responsive to a tax payer's concern over the wide span of reading ability which appears to exist in second grade than in the information that your second grader has been reading since kindergarten and needs his own special program now.

Last, but certainly not least: ENJOY!! Enjoy gifted children because they are eager to learn, they communicate early, they think and they understand. They may try your endurance and stamina at times, but their lust for learning and enthusiasm will more than make up for the pace. Relax and enjoy the excitement. ENJOY THE CHILDREN.

If you think you are alone, look around you. You have plenty of company in the parents of the 2½ million gifted and talented children in the country. What numbers! What voting power! What limitless possibilities!

If I could have just one wish for these 2½ million youngsters, I know what I would wish for. I would not wish for money for their education, although that surely would help. I would not wish for enough trained educators, although I know that no program is better than its teachers. I would use my one wish to wish for a change of attitude toward gifted children... change on the part of all parents, educators, the children themselves, and the public at large, a change of attitude from apathy and defensiveness to one of pride and joy in what these children can contribute to the quality of all our lives.

If we can accomplish this attitudinal change, then generous legislation and quality educator training would follow as a matter of course. Everybody would want it; we would not be a minority any more.

Can I get my wish? I think I can. The philosophy by which I live makes everything possible; there are no limits. It has served me well through hard times until today I can confidently state that I think I can have anything I want - anything at all - if (1) I really want it badly enough, (2) I am willing to work hard enough, and (3) I will have a little patience - but not too much.

For the sake of our gifted children, I would like to offer you my philosophy. I invite you to make it your own and live by it. I hope it will do for you and your children what it has done for me. It has given me the opportunity to learn as much as I was able to learn at a given time, and it gives me now the chance to possibly have an impact on the lives of others to do the same. I wish you fulfillment and accomplishment in our joint effort.

And lest we forget: I wish you happiness and a bright future for your gifted children.

5

THE MENTOR AND THE EDUCATION OF THE GIFTED AND TALENTED

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INTRODUCTION

I first got interested in the whole idea of mentoring because I had mentors who made a difference in my life. This is a conventional enough experience, but one which nevertheless has had a profound effect on me, as it has on many. I have often reflected rather passively on what it was about the encounter with my own mentors, or about them as teachers, that really made an effective and compelling difference. Nothing much came of that reflection until about three years ago, when I had an experience that brought all my musings together in one place. It was an unconventional experience because it opened up a whole new range of thinking, different from anything I had experienced before.

At that time I read through Carlos Castaneda's four books on his apprenticeship with the Yaqui Indian sorcerer, Don Juan. Apart from the completely fascinating account he provides of "non-ordinary reality," which was mindblowing enough in its own right, it occurred to me that his account was not only a startling dissertation of a completely "other" way of thinking about things, but was also a superb rendering of the dynamics of the relationship between a mentor and a pupil. The study I made of mentoring using these books as a base was subsequently published as a little book by the Council for Exceptional Children.[1] That's what got me started on the train of thought I want to share with you today about what I think is one of the truly unexplored areas of education generally, and gifted/talented education particularly -- mentoring.

First of all, before we really get into the substance of what I want to say, I want to clear the decks about what I think a mentor program is not. I want to make my own biases clear.

> First, a program which simply makes it possible for a gifted/talented student to spend time in the presence, or under the supervision, of an adult, is not a mentor program.
>
> Second, a mentor program is not the same thing as an internship. Internships are experimental. Their emphasis is on "try it out" behaviors and they are oriented toward learning skills and procedures. Mentorships presume commitment. They are more oriented toward shaping a life outlook than on experimental behavior.
>
> Third, a mentor program is not a career education program; it is not about the "world of work," at least in the first instance.
>
> Finally, a mentor program is not primarily a community service project, although it may contain such a component. Its focus lies elsewhere.

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[1]Boston, Bruce O., The Sorcerer's Apprentice, Reston, VA: The Council for Exceptional Children, 1976.

Now that we have an idea of some of the things which are not mentor programs (at least from my prejudiced point of view), I want to examine mentoring from three different points of view:

I. The philosophical/theoretical

II. The personal, in the sense of its impact on the person of the student, and

III. From the point of view of some practical considerations.

I

PHILOSOPHICAL AND THEORETICAL CONSIDERATIONS

The first thing I want to suggest here is that the mentor/pupil relationship has as its fundamental basis, the task of gathering up, internalizing, and forwarding a particular tradition. That is its very reason for existence. Let me say that again, because to me, this is the heart and soul of the whole matter. The mentor and the pupil are involved in a process of transmitting a particular tradition from one generation to the next.

On mentioning it, the fact of this may not seem particularly overwhelming, but I can assure you that it is almost universally overlooked in thinking up and implementing mentorship programs for gifted/talented children. Why? Because we are uncomfortable with thinking about education as rearing and nurturing children in a particular tradition. In fact, if we think about it at all, we think of education as almost an enemy of tradition, its conqueror.

But what do we mean by tradition? I mean exactly what Tevya means by it in Fiddler on the Roof. For Tevya, tradition is the sum total of what makes him who he is. It is the raft that bears him across the vast ocean of his personal and social history. To discard the nautical metaphor for a minute, tradition is a kind of social and cultural glue that holds our world together. It imparts sense to our undertakings and provides the reference points we need to understand and measure the quality of our lives.

And what mentoring is about is introducing young people to all of that, in particularized forms.

I regret having to remind you that we seldom think of education of the gifted/talented in this way, much less education in general. We tend to think of education as the process by which neutral bits of information are transferred from one mind to the next, from one generation to the next, coupled (in the very best of circumstances) with some very vague hopes and whispered mandates about what might be done with this data. But that is simply not enough. It just won't do.

My argument starts from a very different premise: that both mentor and pupil are the servants of a tradition. It does not matter, particularly, what that tradition is. It may be art, the law, medicine, plumbing, or taxidermy. That is of small consequence.

What is of enormous consequence is that both the mentor and the pupil enter into an agreement to submit themselves to a particular tradition for the sake of its perpetuation and advancement. What both submit themselves to is a form of servanthood.

In fact, the mentor-pupil relationship is impossible without such a tradition. The mentor is the representative, indeed, the enfleshment of the tradition for the pupil. S/He is the living example of what it means to make a life commitment to something that lies beyond not only the self, but the lifetime of that self. The mentor is the inheritor of a great legacy which is, in turn, passed on to the pupil. And together, the mentor and the pupil form the two poles between which the electric arc of the tradition jumps.

Unfortunately, this idea is regarded with much suspicion in education circles today, particularly when it comes to the gifted/talented. In our rush to be and to stay modern, we allow ourselves to be drugged by the new:

- by new instructional techniques,
- by new research on the nature and structure of the intellect,
- by new curricula,
- by exotic programming options, and
- by dazzling educational technology.

Eventually we wind up being victims of a false consciousness that tricks us into believing that real education for the gifted/talented is just a matter of finding the appropriate pedagogical gimmick.

I don't want to suggest that these things are all bad. On the contrary, many are good and useful. They should be pursued. But none of them is worth a penny unless they are attached to something, unless they have a context, unless they are wedded to a tradition which enlivens and provides some sort of overall imperative for the lives of the young people we are trying to share all this with.

Tradition provides a context that takes who we are, and where we have come from, and where we are going with ultimate seriousness.

It provides a context that subordinates technique to value, experimentation to procedure, and the part to the whole.

It offers a context that ties an individual to a tradition by a commitment which that young person can never begin to know, to live out, and

ultimately to love, without experiencing it. And here I am referring to the kind of social wisdom that was expressed by the social philosopher Eugen Rosenstock-Huessy, when he said that "the heart of man either falls in love with someone or something, or it falls ill. It cannot go unoccupied." What I am arguing for here is that mentoring is a form of social health.

Mentoring is, first of all, a matter of the tradition.

II

THE IMPACT OF MENTORING ON THE PERSON OF THE STUDENT

I believe that a highly appropriate place for this commitment to a tradition to take concrete shape is in educational programs for gifted/talented children, because it is at this point that we are making a very serious wager about our own future. One of the reasons that I, and I assume you, are interested in what happens to gifted/talented children is because we know we cannot afford to pass this world on to the next generation unless we create an educational environment in which our children can actualize the best potential. We cannot afford to turn our children loose in the world without a direction.

The gifted and the talented are perhaps more than just our collective progeny. They are and in some sense our hedged bet against the threat that the world will go to hell in a handbasket. It is with the gifted/talented, perhaps more than with other children, that we have to ask the really tough pedagogical question, which is not just "How shall I teach?", but "How am I to help this child create a future that still contains and fulfills the past?"

And unless we are able to assure that our gifted and talented youth are rooted in a tradition, and have a clear commitment to the values that emerge from it, then the future we are entrusting to those children will not be particularly worth having.

That brings me to the impact of mentoring programs on students. The purpose of a mentor program is, and ought to be, to change lives.

Such a point is likely to raise the hackles on the back of the necks of a lot of "liberal" educators, those I am beginning to think of as the "oracles of openness." Most of us would probably prefer not to think about education as a process of transformation. We all shy away from taking on that kind of responsibility. I regret to say that this reticence even infects some parents, who have been so terrorized by developmental psychology that they confuse plain old parenting with manipulation. They wind up being crippled by the quintessential parental disease: guilt. But I am not convinced that that reticence is the better part of wisdom.

I subscribe to the view that to be a parent, or a teacher, is to take responsibility for the lives of other human beings, to be responsible for the transformation of potential into actuality. As teachers, we are all in the business of turning out real human beings.

And perhaps more than any other kind of teacher, the mentor bears this responsibility for children. Why? Because the staggering potential of the gifted child translates into real power, something which must either be grasped or lost -- or worse yet, misused by the less scrupulous.

Professional, vocational, and academic choices color the whole person of the gifted youngster, and that whole person's whole future. Apprentices, students, and trainees internalize the values, characteristics, role expectations, indeed, the entire worldviews of their mentors. And so they should! We do not do our gifted/talented children any favors by giving them unlimited space and freedom to decide. The primary concern of the mentor is and must be the spiritual, moral, and intellectual growth of the pupil toward some responsible, adult expression of goals and values. And that process is carried out either intentionally or by whim.

The mentor, then, is a shaper, a sculptor of human life. Let's not forget that.

III

PRACTICAL AND PROGRAMMATICAL CONSIDERATIONS

How do we work out this perspective in practical terms? How do we manage to wed the ideas about the mentor and a tradition, the personal impact of the mentor on a pupil, and some of the more pragmatic aspects of programming to meet the needs of gifted/talented children and youth? Let me make three brief points.

(i)

The first thing to be said about mentoring in a practical context is that it shapes the focus of the educational event and places that event where it belongs: in the context of a relationship which can be explored, challenged, and deepened. Mentoring thus becomes the natural, pedagogical complement to parenting. Mentoring affords young people an opportunity to move beyond the home -- in short, a way of growing up.

By placing a gifted/talented youngster in close proximity to a mentor, the child has a real world context within which to work out the things s/he must learn. Mentors customarily teach from the world to the child, not from the book to the child, because that's where the mentor lives and works. There is no better educational arena than the real world.

(ii)

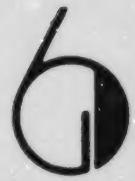
Second, we should not ignore that one thing a mentor program must give to both mentor and pupil is privacy. By this I mean private time and private space that is protected from the demands of the day-to-day world of the school. The relationship between mentors and pupils is privileged and should not be intruded upon without good reason.

This consideration is likely to raise some administrative problems and cause some difficulties, but their solution will create something that few youngsters have in our schools today, an unmediated access to a respected and admired adult. That is worth holding out for.

(iii)

Third, the mentor offers the pupil a role model to emulate, to grow into, and hence grow out of. The mentor also offers a model of competency, exploration, concern, indeed, of advocacy for a particular way of living life in the world. These are real choices we are talking about here -- about what to do with time, energy, money, values, commitments. The mentor is not playing around, and no mentorship program based on the assumption that what is happening between the young person and the mentor is a form of "play" or "experimenting" can possibly succeed. The only possible premise is to expect that the mentor and the pupil will continue to be what they in fact are -- real people wrestling with real issues in a real world.

The mentor-pupil relationship, therefore, affords the opportunity to repair the fracture between thought and action, between a copybook exercise and honest-to-God training in a real discipline. That fracture is all too real in the regular classroom, and I am not certain that many gifted/talented programs, particularly those dealing with mentoring, have done much better than paper over that breach. But it seems to me that the mentor approach is very much worth considering if we are serious about what our gifted/talented children are to become.



PERSONALITY STRUCTURE AND CURRICULAR DIFFERENTIATION: A SYNTHESIS IN GIFTED EDUCATION

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I. Theory and Practice: State of the Art in Differential Education for the Gifted

Among the educational practices which comprise our efforts constructively to accommodate, evoke and direct the extraordinary capabilities which a small minority of children in school manifest in their general behavior, there seems to be a continual problem in matching the principles of the life and social sciences with acceptably sophisticated professional thought and activity. The notable antipathy between theory and practice which has characterized the American educational institution throughout the present century must be recognized as a culprit in the shadows; and a tendency among advocates of special education for positively exceptional persons unthinkingly to follow in succeeding generations the main usages established in the decades before, compound the endangering condition. One school generation after another of gifted youth, even where in recent history occasional peaks of societal acceptance have emerged, remains neglected -- seriously deprived would be the more appropriate description -- in terms of practice in school and classroom which maintains defensible contact from the scientific laboratory through the professional training institution where such theory as we have tends to emerge.

The present analysis is limited to the respective provinces of two problems in the task of Differential Education for the Gifted (DEG), those of (a) definition and identification and of (b) curricular supplementation. We wish first simply to acknowledge a prevailing condition hopefully sufficiently commensurate with the reader's experience to serve as a basis for our proposal toward remediation; and then to present in main form several existing models in widespread use in contemporary thought and practice or gifted education, through which the theoretic deficits and the practicing difficulties may be advantageously reconceptualized. The title of the paper suggests the proposed approach. In contrast to historic convention and prevailing usage, these involving mental measures of one or more kinds, and certain "types of giftedness" by no means convincingly related, we offer a rapprochement between the structure of mind or personality and that of the epistemology (applied) with which we work.

Briefly then for the identification problem. Across the half century in which scientists and educators have been combining their efforts in the interest of budding genius, we have followed certain working views as to the nature of the human mind. Both in the earliest theory of mental organization, i.e. the "uni-factor" theory of intelligence upon which Terman's original concept of giftedness was based; and in the next ensuing historic development, the "two-factor" theory of mental organization established by Kelley and others during the decade of the 1920's--there was a fairly workable parallelism between the psychological processes through which giftedness was assessed and assigned, and the school experiences which comprised the differentiating curricula in various degrees from informal particularity to formal design. Thus one of the present authors (Ward) was able to work out a "psycho-educational parallelism" in the design of the Governor's School of North Carolina[1] between the two-factor idea as to the structure of intellect and the eightfold structure of the curriculum which has comprised the main area of endeavor in the original GSNC from its inception in 1963.

But contemporary preferences for explaining the nature of the complex human mind, i.e., the "multi-factor" theories, make for a strained particularity in curricular practice which requires a behavioristic reductionism for credence. The patterns involved in J.P. Guilford's model ("Structure of Intellect") are of course soundly based in statistical theory, as one would expect from a leading statistical theoretician. But the suspect condition arises when educators come to feel that these statistical operations comprise willy-nilly a workable base for classroom enrichment and systematic curricular designing. Despite the impressive numbers of professionals who have become affected by this view, teachers continue to find the use thereof neither experientially convincing nor readily adaptable to the workaday demands of their professional responsibilities.

The utter failure to elect a functional liaison between the minute particularity forced upon the otherwise marvelously organic and wholistically vibrant reality of mind, a natural phenomenon still only partially and crudely encompassed among the various dimensions of "artificial intelligence"; and the school curriculum, itself a Rube Goldberg contrivance of bits and pieces of knowledge stuck together in somewhat less than either meaningful or elegant fashion, is apparent to any observer who has indeed reflectively observed. Increasing numbers of awareness-saturated conferees and pursuers of the magazine type of current literature in the entre-famille publications of the happy professional following identified with giftedness today appear to be raising questions to this effect, and wanting deeper assurance.

There is simply no substantial case to be made in reason or in evidence for effective casual relationships between the labeling of a given child as a "leader," and the school experience through which he is purportedly brought at maturity into an aggrandized capability for leadership. And while no sane person is likely to stand opposed to the "creative" uses of human intelligence, many essentially rational persons greatly hunger for less celebration and greater validation within the unbridled climate of enthusiasm which currently prevails.

These conditions and the serious deficits in the knowledge base which we have presently available for professional training, research and teaching, and for project and program evaluation, are such as to warrant direct attention in an effort to reconstruct the theoretic foundations of the field of interest and obligation; and a full panoplied endeavor in this vein would comprise no less than the construction of a "science" of DEG. For the present occasion, a summary of the foregoing analysis in the focal form of propositional language will hopefully suffice for the intended readership of this collection of conference papers, thus:

Proposition 1: Knowledge and Practice in the Concept of Giftedness

That conventional approaches to definition and typology in the matter of positive trait extremity among youth force a division between these psychological processes and those applied epistemological uses out of which differentiating curricula are constructed, which gap is unsatisfactorily bridged in terms of criterial referents for theory and professional thought as to practice.

Proposition 2: Identification Process and Curricular Design

That the division or severation between the problem of definition and identification, and that of designing curricula for the nurturance of the general or specific talent characterizing the person, comprises one such deleterious usage. Psychological domains and trait constellations, that is, which in themselves are convincingly authentic, bear no defensible connection to the epistemological structures out of which purposefully differential curricula are developed.

Proposition 3: Psycho-Epistemological Parallelism

That an appropriate parallelism between the mental organization of the gifted learner and the character and organization of the knowledge (curriculum) through which the positively exceptional person will evolve (nature and nurture) into an extraordinarily contributory member of society, comprises a logical requisite for a theoretically sound practice of Differential Education for the Gifted.

Ensuing sections of the paper will be devoted to the indication by language and chart of principal outlines among developments with which the authors have been engaged for some time. Only main lines of the thought can be presented here, and abstracted features of the charted relationships which serve to connect the structures of personality or mind with the potential curricular structures which lie waiting in largely unexplored realms between the philosophical inquiries that comprise the design of supplementary curricula for gifted youth in the American school.

II. Identification and Curricular Synthesis

A. Identification

Identification in DEG is a matter of systematic selection of potentialities to recognize the characteristics of the gifted individual.

Our approach to the problem of definition and typology of giftedness is unconventional and invites our readership to participate constructively in critical discourse for the sake of advancement of a science of DEG. We encourage theoreticians and practitioners of DEG as well as academicians from related disciplines to collect all the data possible on extreme positive exceptionalities of potentially gifted youth. Only the quantitative-qualitative diversity of data on bodily, mental, and specific behavioral operations will lead us to definite and identifiable constructs of a gifted personality structure.

Our personological model (Fig. 1) avoids limiting of identification to a narrow definition of giftedness. It attempts to link, into one pattern of whatever qualities of body, mind, and character are latent within the gifted individual, the gifted person on the whole (P_w):

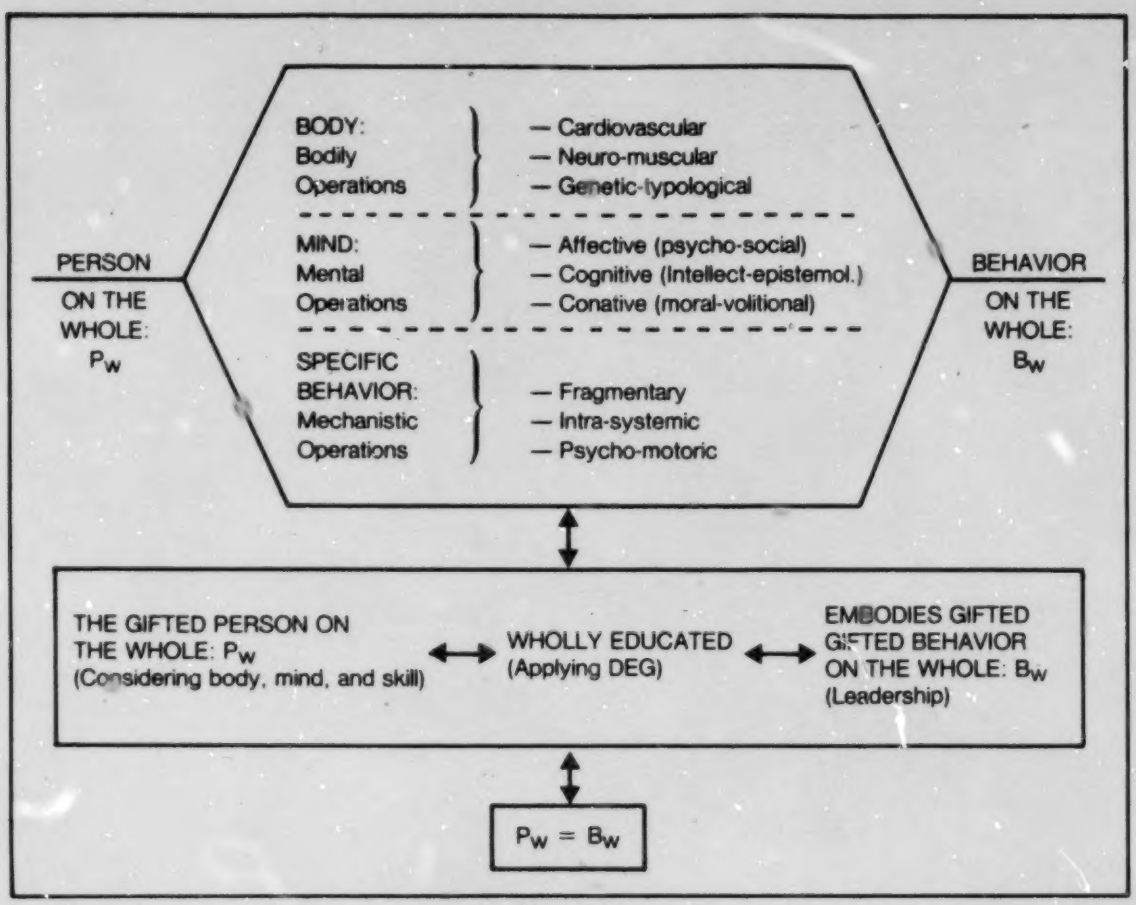

Figure 1

Within this personological model the concept of Mind addresses three distinct mental operations: the affective, the cognitive, and the conative domain.

Affective Assessment indicates that gifted children are more likely than other youngsters to be well adjusted socially and emotionally. But it also recognizes their adverse sensitivity to conformity and dependence.

Cognitive Appraisal is concerned with general intellectual potentiality and specific mental aptitude. The identification of cognitive capacity should focus only on challenging and worthwhile intellectual activity. Also factors of personality, interest, and experience greatly influence cognitive appraisal.

Our last consideration within the conceptualization of mind is the Conative Domain; it supports the notion of character assessment and moral development, identifying true greatness as service to humanity. This is particularly appropriate to the gifted, who have the capacity and drive for social, academic, and/or social leadership (Hildreth). The concepts of the social utility and social responsibility of giftedness are additional foci that fall within this domain.

The two remaining concepts - Body and Specific Behavior - aide observationally as convenient liaisons to mind, and, therefore, to person on the whole (P_w). Their observational value (bodily operations) and diverse intra-systemic behavioral manifestations (mechanistic operations) will allow DEG-personnel in the near future to diagnose more accurately if behavior modification becomes necessary.

B. Curricular Synthesis

Curricula in DEG derive from our theoretic position in understanding giftedness wholistically. This understanding reflects our conceptually ordered model of personality structure, which allows us now to supplement the previous schematization (Fig. 1) with observational and educational systems as shown in Fig. 2:

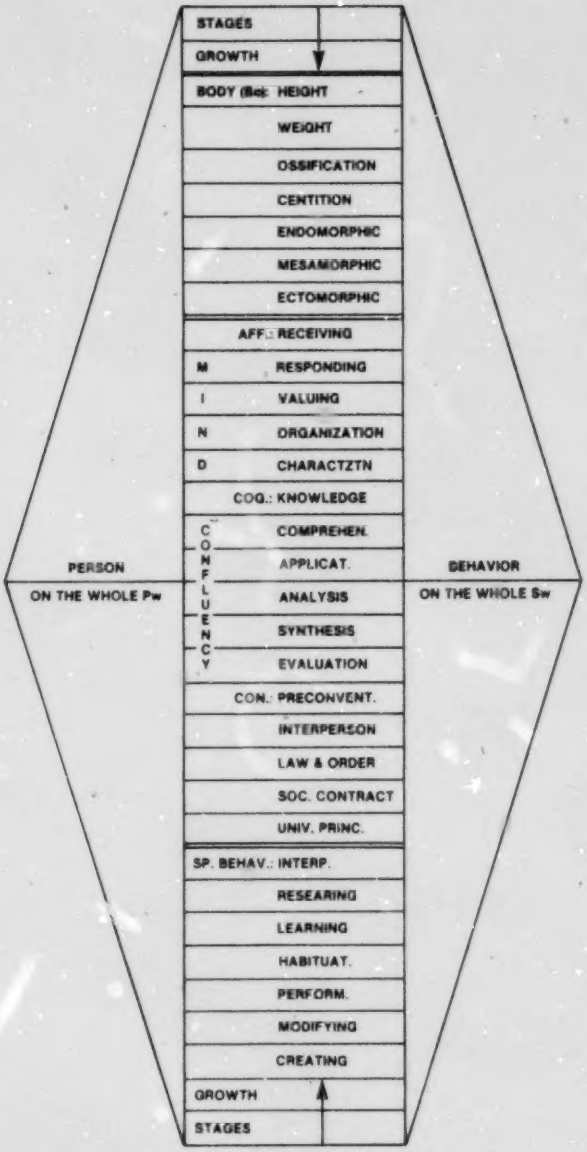

Figure 2

We chose for observational reasons the "organismic ages" (height; weight, ossification; and dentition) of Olsen[2], and the "body constitutions" of Sheldon[3] to extract from "Body (Bo); correlations of organismic growth, body types, and temperament. All of these constructs add to an emerging gifted personality theory.

"Mind Confluency" incorporated the psycho-epistemological domains of Krathwohl (AFF=Affective Domain);[4] Bloom (COG=Cognitive Domain);[5] and Kohlberg (CON=Conative Domain).[6] All three parallels receive equal educative treatment in DEG. The inter-play and support of these domains (confluency) constitute the main thrust and an elegant synthesis for a systematically designed DEG-curriculum.

"Specific Behavior" addresses Simpson's educational objectives for the psychomotor domain.[7] We found her solution suitable to apply to all mechanistic operations of specific, non-intellectual behavioral patterns which can be subject to behavior modification in a DEG-setting (ex.: hand-writing; typing; operation of media hardware and software, etc.). This domain also appropriately reinforces development of talent skills.

Curricular theory - our theoretic conversion in Fig. 2 - must satisfy the distinguishing capacities and personal needs of the whole superior learner. Thus, all domains outlined in our curricular model are areas of growth and development, and deserve, therefore, nurture in DEG. The curricular synopsis on the next page (Fig. 3) will, finally, assist our readers in grasping the comprehensiveness and cohesiveness of our psycho-epistemological parallelism in curricular theory for DEG.

Figure 3

I. CURRICULAR DIVISIONS FOR THE AFFECTIVE DOMAIN

A. Self Insight:
1. Organic Needs
2. Emotional Needs
3. Interests
4. Judgements
5. Idealizations

B. Personal Development:
1. Survival Ethics
2. Hedonic Ethics
3. Self Realization and Self Actualization
4. Critical Ethics
5. Progressive-normative Ethics (Partially adopted from Phenix, 1977)

Continued on next page.

Figure 3 (Continued)

II. CURRICULAR DIVISIONS FOR THE COGNITIVE DOMAIN

A. General Intellectual Ability(g):
1. Learning how to learn
2. Knowledge about knowledge
3. Complex degrees of abstraction
4. Philosophical relaction and ideation
5. Autobiographical studies of genii

B. Development of Aptitudes:
1. Academic Disciplines:
   a. Humanities : Comparative studies
   b. Mathematics : Logic and problem solving
   c. Natural Science : Scientific method
   d. Social Science : Systems' comprehension and systems' analysis
2. The Fine and Performing Arts:
   a. Theoretic comprehension
   b. Practical application
      — Dance
      — Drama
      — Music
      — Painting
   c. Creative interpretation
   d. Aesthetic approciation

III. CURRICULAR DIVISIONS FOR THE CONATIVE DOMAIN

A. Self Drive:
1. Homeostasis (bodily)
2. Passion (sensitive)
3. Action (volitional)
4. Thought (rational)
5. Vision (self-transcending)

B. Personal Goals:
1. Adaptive Skills
2. Reconstruction or Innovation
3. Communal Collaboration
4. Critical Inquiry
5. Comprehensive Commitment (Partially adopted from Phenix, 1977)

IV. CURRICULAR DIVISIONS FOR SPECIFIC BEHAVIOR(S):

A. Self Discipline

B. Self Endurance

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III. Conclusion

We can summarize our concerns in three tenets that favor the emergence of a science of DEG:

First:

Theoretic certainty of knowledge about giftedness of the potential person on the whole (our personological model) must fill the theoretic vacua and practical dubieties in the field.

Second:

Good identification and selection involve the use of multi-facet screening devices and observational data, since giftedness per se can be regarded as a multi-faceted phenomenon. DEG-professionals and scientists in related fields (ex.: psychology and physiology) must cooperatively assess giftedness as behavior on the whole with more emphasis on inclusion (body and mind and specific behavior(s)) than exclusion (body or mind or specific behavior(s)).

Third:

The numerous special curricula being devised across the nation largely result from spontaneous eagerness and immediate needs. Our theoretically sound psycho-epistemological parallelism of DEG is systematic and nurtures the nature of affective, cognitive, and conative potential.

We hold addictively with Dewey the position that only "theoretical culture with meaningful practical behavior bring definite results."[8]

Only a wholly educated and wholly actualized gifted individual will contribute wholly and extraordinarily to society and humankind.

FOOTNOTES

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7

CURRICULUM FOR THE GIFTED: PULLING FROM OUR BAG OF TRICKS TO MEET INDIVIDUAL NEEDS

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According to a survey of experts in the field of gifted education (Renzulli in Barbe and Renzulli, 1975), the curriculum is one of the key elements of a successful gifted program. Yet all too often, the curriculum is viewed in too narrow a sense so that it ends up being a fragmentary collection of activities. This type of curriculum "approach" has recently come under harsh criticism, perhaps justifiably so. If gifted programs are to survive the impending budget cuts and public demand for accountability, they must use a systematic approach to curriculum development.

The Tyler (1949) approach to curriculum and instruction is considered a classic and seems applicable to gifted education. Tyler suggested that curriculum development begin with information from a variety of sources. This information would be used to generate a pool of objectives. The objectives, in turn, would be screened and culled out to a manageable number. These objectives would then be used to select learning opportunities for the students and to evaluate the success of the program. This idea of using a wide variety of information to systematically determine curriculum and instruction could greatly benefit gifted programs.

The Tyler rationale could perhaps be compared to problem solving techniques. All factors that could influence curriculum development are synthesized to give direction to the activities for gifted students. Diagram 1 illustrates possible factors that impinge upon the curriculum:

GIFTED PROGRAM CURRICULUM DECISION-MAKING MODEL

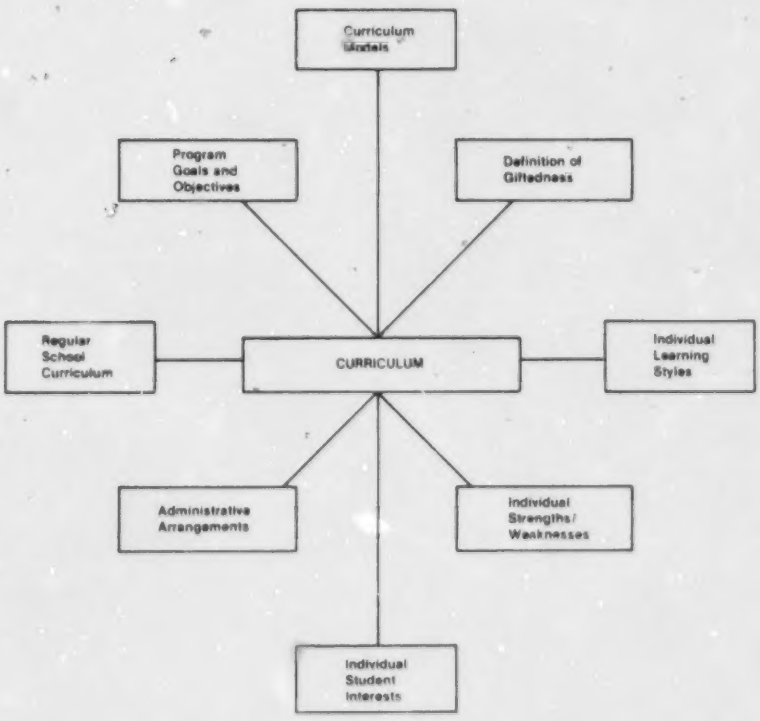

Diagram 1

In this case, those involved in the decision-making processes for the gifted program determined that each of the factors in the diagram had a direct bearing upon the curriculum. For example, a fulltime program for the gifted would have a very different curriculum from a class that met after school for one hour per week; just as a program with teaching games as the major teaching/learning style would differ from that where projects was the predominant mode.

Having made these decisions, the next step in effective program planning would be to gather data on each of these influential factors. Group data might determine general curriculum provisions, while data on individual students would aid in writing individualized plans or an IEP. Taking our sample curriculum decision model, a more specific case can be made. The information was collected and interpreted as follows:

Program Goal - The student will demonstrate enhanced critical thinking skills as indicated by questioning ability, organizing and perceiving relationships, analyzing, synthesizing and making judgments.

Definition of Giftedness - Renzulli (1978) definition of above average intelligence, creativity and task commitment.

Administrative Arrangement - Resource room for three hours per week.

Regular School Curriculum - AAAS Science Program

Curriculum Model - Taylor's Multiple Talent Model (Taylor, 1971)

Individual Student Interests - Interest-A-Lyzer (Renzulli, 1977) indicates that a majority of the students were interested in collections of various kinds.

Individual Learning Styles - Teaching/learning styles inventory (Renzulli and Smith, 1977) seems to indicate that there is a variety of learning styles in the class, with individual study greatly preferred.

Individual Strengths/Weaknesses - Many of the students exhibited weaknesses in perceiving differences and similarities, although they were highly observant (Ross, 19).

Having generated and summarized all of this information, the final steps involve selecting an alternative and determining a plan of action. In this case, the decision-makers of the program converged on a unit dealing with attributes, classification and collections entitled "Tweeps or Weeples" (Nevins, 1979). This unit approach allows for large group instruction for a small part of the time, but focuses on individual or small group selection of activities. It builds on individual interests, strengths/weaknesses and

on the process-oriented science curriculum of the regular classroom. It is realistic for a class that meets only three hours per week and blends well with the definition of gifted used by the program and with the program goals. Thus, the teaching strategy and curriculum flow from a systematic checklist of those factors considered influential by one program. The factors and decisions of another program might well differ, but it is the process of curriculum determination that is important here.

Tyler's call for a rational approach to curriculum development should not go unheeded by educators of the gifted. While the curriculum is obviously important in and of itself as the "doing" part of our program, it also serves as a vital communication and evaluation vehicle. The necessary intertwining of all components of the gifted program must not be overlooked and must be utilized to develop an appropriate, defensible curriculum for gifted students.

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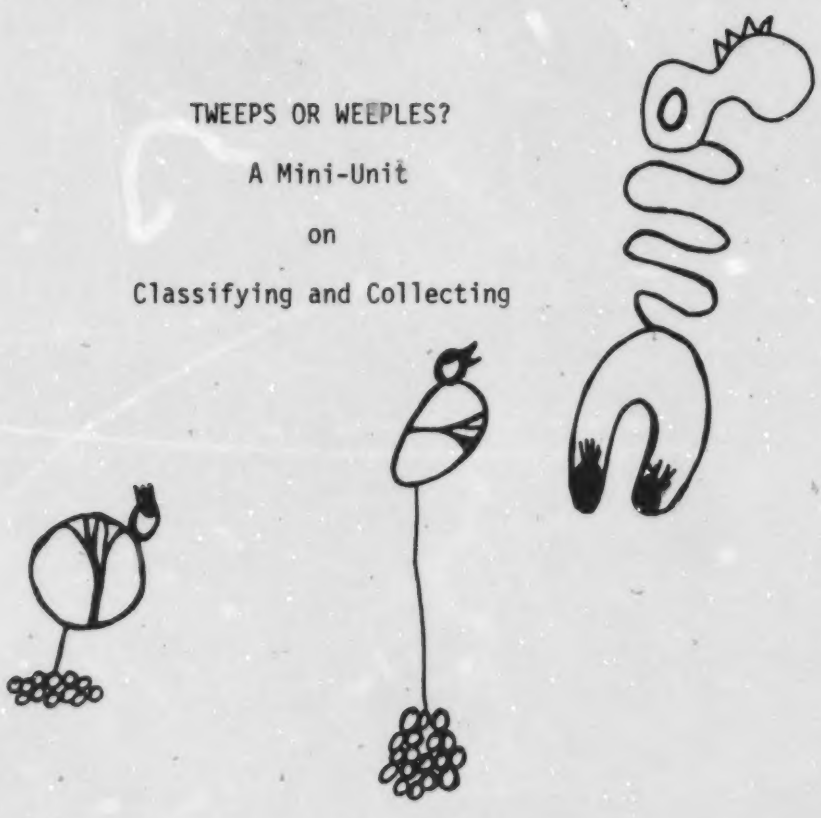
TWEEPS OR WEEPLES?

A Mini-Unit

on

Classifying and Collecting



Presented by:

Cynthia Nevins

University of South Florida

TWEEPS OR WEEPLES?

A Mini-Unit on Classifying and Collecting for Primary Students Based on Taylor's Multiple Talents Model

Presented by: Cynthia Nevins

Goals

1. To develop the concept of attributes and their role in classification through small group activities and discussions.

2. To increase self-awareness by identifying personal attributes through small group activities and role-playing.

3. To develop awareness of the way observation affects the complexity of classification through experiences with specific observational techniques and tools.

4. To identify purposes for classification through brainstorming, observation and participation in classification activities.

5. To develop awareness of the variety of classification systems through field trips and audio-visual materials.

6. To plan and use classification in individual and group projects.

Objectives After completion of this unit, students will be able to:

1. Classify according to attributes.

2. Describe various classification systems and explain their usefulness.

3. Explain how observational tools affect the complexity of classification systems.

4. Design a classification scheme for a personal collection.

5. Predict possible consequences of failure to use classification systems in various situations.

6. Plan an interview with a person who regularly uses a formal classification system in either their occupation or hobby.

7. Demonstrate various ways to classify a given group of objects.

8. Choose an effective way to display a personal collection for an "exhibit" in a mini-museum.

Description

This unit is designed to increase students' awareness of the diverse roles classification plays in our lives as well as its application in an enjoyable pastime: collecting. It will be organized in three sections:

I. Classification according to attributes

II. Observational tools as aids to classification

III. Application of a classification system to a personal collection

The unit activities have been selected to offer opportunities for students to have experiences in each of the areas of the Multiple Talents Model that is the outgrowth of the work of Calvin Taylor: academic; creative; planning; communicating; forecasting; and decision-making. Hopefully, these experiences will help the student gain a clearer picture of who he or she is, what strengths he/she possesses, and how these abilities can serve personal needs.

CLASSIFICATION ACCORDING TO ATTRIBUTES

Boundary Breakers

1. If you were asked to sort all the objects in an attic by only one attribute, which would you choose and why?

2. Can you name a way we sort objects?

3. Can you name a way we sort people?

4. Can you name a way we sort animals or other living things?

5. How is sorting or classifying useful to us?

6. Think about the ways classification is a part of your life. What would be different about your life if man had never discovered how to classify?

7. How could you say "I like you" to someone without talking?

8. Do you agree with this saying, "A place for everything and everything in its place?" Why or why not?

9. Do your parents ever have any complaints about how you keep your things sorted out?

Encounter Lesson

Imagine that you are a Tweep, a cute young Tweep. Until now you have never been away from Tweepland where everyone is very much like you.

1. You find yourself in a room full of creatures called people. How did you get there and why are you there?

2. You begin feeling very self-conscious as you look around the room. You have only one attribute in common with them. What is that attribute? Can you describe yourself?

3. All the people turn in your direction. Trying to seem friendly, you do what all friendly Tweeps do. What is that?

4. As people get over their amazement, they all stick out long things with funny-looking pointy parts at the end. They touch you. What would your surface probably feel like to them?

5. You begin to feel tweepy. What causes the feeling? How does it make you behave?

6. The people throw a net over you. How do you react?

7. If you could share one piece of knowledge with the people, something that every young Tweep learns as soon as they reach age three, something that people don't seem to know--what would it be?

Group Extenders

Each of these activities includes at least a portion of time spent in a group. The group might be the whole class or a small group. Some of the activities could be done by students after an initial group introduction.

Each activity will be coded according to the parts of Taylor's Multiple Talents Model that it deals most directly with.

1. Academic
2. Creative
3. Planning-Organizing
4. Communicating
5. Forecasting-Predicting
6. Decision-making

1. (1, 2, 3, 4, 5, 6) Use attribute blocks, people pieces and E.S.S. teacher's guide Attribute Games and Problems to develop the following concepts: attribute, value, set, subset, matrix, common difference, intersection.

2. (2) Brainstorm things to classify and ways to classify them.

3. (2, 6) Brainstorm traits of people. Pair related traits (i.e. organized-disorganized) and place them at opposite ends of an imaginary continuum. Have students place themselves along the continuum.

4. (6) Have students bring in "clue bags" that contain items that give clues to some of their own strong interests, likes or dislikes. Sort class members according to different criteria, based on the clues in their bags.

5. (5) Bring in a mini-attic. Based on its contents, have students imagine what the family the attic belonged to was like and when they lived.

6. (1) Invite an artist to talk about the attributes of line, shape, color, texture.

7. (1) Invite an actor or actress to demonstrate how to use your body expressively. Interpret different feeling words.

8. (2) Play "What A Thing Can Be" from Thinking Goes to School. Show the group an object or picture of a person. Have them brainstorm all the possible things it can be depending on the circumstances.

9. (1) Show the film "Hailstones and Halibut Bones" and discuss ways colors can express feelings (4).

Independent Activities

1. (3) Think about your bedroom or playroom. How could you sort your things. Plan a way to organize your books and toys so it is easy to keep them in order and picked up.

2. (4) Ask your parents to let you try out your plan.

3. (1) See how long you can keep using your system. Record the state of your room before you go to bed each night.

4. (4) Share your progress with us. Maybe we can all learn from your problems and successes!

5. (1, 4, 6) Take a big Clutter Box (box filled with junk). If it was your own box, what would you keep and what would you throw away? Ask someone else to sort it. Did they make the same choices? Discuss why you chose to keep some things that your friend would have thrown away.

6. (6) There are some envelopes called "People Pictures." Each one has a group of pictures of people. Sort them into groups to show the feelings their bodies are expressing.

7. (6) Take an envelope of People Pictures. Sort them three different ways. Each time choose a different physical attribute to sort them by.

8. (2) After reading Weeple People, make up some families of your own. Draw them. Put them in the Weeple People booklet for other children to enjoy.

9. (6) I've collected 10 children's books. Choose one of the following attributes then sort the books. Sort them by another attribute when you're done. Here are the attributes: difficulty; body language; humor; factual information; originality of drawings; (one of your own).

OBSERVATIONAL TOOLS AS AIDS TO CLASSIFICATION

Boundary Breakers

1. A tool is something to help you do a job easier and better. What tool can you think of that could help you classify things better than if you just use your eyes?

2. Who would use _____ and why? (Microscopes, scales, binoculars, computers)

3. Give an example of how the world was changed or could be changed by the discovery of a new tool to observe with.

Encounter Lesson

You live a life surrounded by beakers and test tubes, hoses and meters. You sit alone on a table. You never get moved around much. You are a microscope.

1. Who uses you and what do they use you for?

2. Describe yourself. How old are you? What do you look like? What can you do? How well maintained are you?

3. Can you explain how you prefer to be treated and why?

4. Is there ever a time of day when you are alone? What is the lab like then?

5. You've probably been able to observe many interesting slides in your life. What was the most exciting thing you ever saw?

6. Can you describe the sensation of having your lens switched to a higher magnification?

7. A young child wanders into the lab without any adult supervision. You see the child doing something that makes you want to shout "Stop." What is it and why shouldn't it be done?

8. Why is the world a better place because of you and your fellow microscopes?

Group Activities

1. (1) Demonstrate use of microscope for independent use later.

2. (2) Brainstorm ways that classification can be improved through the use of:

-magnifying glass
-binoculars
-telescope
-microscope
-ink pad
-computer
-interviewing techniques
-meters
-scales
-magnets
-water
-electricity
-filters

3. (1, 2) List interests of class which lend themselves to collections. Find out occupations which are related to the interests listed. Find out if people pursue the interest as a hobby.

4. (3, 4) Plan an interview with a person whose occupation or hobby is related to a class interest. Invite such a person to class. Interview plan should include:

-what we want to find out
-why we want to find it out
-what we can do with the data

5. (1) Visit places that use technical sorting tools, e.g., library, chemistry lab, physics lab, medical lab.

6. (1, 3, 5) Discuss sampling as a way of predicting. Measure a square foot of ground. Predict what will be in it. Identify and classify everything found. Use tools to help increase accuracy of classification.

7. (1) See if there is a film used in industry to show the use of microprocessors to sort such things as peanuts, coffee, beans, fruit.

Independent Activities

1. Gather 10 different kinds of leaves. Sort them 3 different ways. Using a magnifying glass, sort them a fourth way.

2. (6) Take a bag of stamps. Sort them three different ways. Using a magnifying glass, sort them a fourth way.

3. (6) Take a coin assortment. Sort them three ways. Use the magnifying glass to sort them a fourth way.

4. (6) Take a box of slides and the microscope. First sort the slides without the microscope. Then sort the slides using the microscope. Would you still classify them the same way? Why?

5. (5, 6) Take the "Magnetism Box." Sort it into two values: magnetic/non-magnetic. Use the magnet to check your choices. How accurate were you? Did anything trick you?

6. (5, 6) Take the "Density Box." Sort it according to two values: float/sink. Use the bucket of water to check your choices. How accurate were you? Did anything trick you?

7. (5, 6) Take the "Conductors Box." Sort it into two values: conductive/non-conductive. Use the volt meter to check your answers. How accurate were you?

APPLICATION OF A CLASSIFICATION SYSTEM TO A PERSONAL COLLECTION

Boundary Breakers

1. How do you use classification in your own life?

2. Have you noticed how your parents use classification? How?

3. Do you collect anything? What? How long have you collected it? Did you once collect something that you've lost interest in?

4. Have you visited any museums? Share something that you saw there that really interested you.

5. Pretend that the City of Tampa is holding meetings to decide what to include in its new children's museum. You've been invited to give your opinion. What one thing will you recommend?

6. Do you think ideas can be collected? Why or why not?

Encounter Lesson

You are a piece in a collection that is very important to its owner. The owner spends every evening and part of each weekend with the collection. This collection is growing and changing all the time.

1. What are you and what kind of collection are you in?

2. Describe yourself in detail. How important are you to the collection and why?

3. Tell us about the day that your owner added you to the collection. Where had you been before that?

4. While loading the collection into a car your owner gets distracted and drives off without you. What do you do?

5. A person you've never seen before is hanging around one day. You suddenly realize that you are about to be stolen. What is your reaction? Who is the person and what happens?

6. You overhear your owner telling a friend that he or she has decided to trade or sell you. How can you convince your owner to keep you?

7. If people were losing interest in collecting things, what could you say to them about the importance of collections to renew their interest?

Group Activities

1. (1, 5) Visit a museum that has lots of collections. Estimate in advance the number and kinds of collections you might see.

2. (3) Plan to survey the teachers to find out what they collect, if anything. Find out how they got started, how long they've done it and why they do it.

3. (1, 3, 4, 6) Design and build a mini-museum. Consider:

   -categories of collections
   -participants
   -name
   -criteria for exhibits
   -limits of time, space and money
   -publicity and public service

4. (1, 3, 4) Invite a museum curator to speak about the important aspects of running a museum.

5. (1-6) Prepare a booklet on collecting for students visiting the mini-museum.

6. (2, 4, 6) Brainstorm places where children could display their collections in the community. What criteria would each require? How would the criteria and the audience vary? Try it!

Independent Activities

1. List all the things you might enjoy collecting.

2. (6) Get a "Have you thought about this?" sheet. (This sheet should be a long list of possible things to collect.) Check the things that look interesting to you.

3. (6) Choose one thing to start collecting, or something that you've already started collecting. Use this criteria:

   -interesting to you
   -can be started quickly, easily and inexpensively
   -could be transported and displayed in a classroom easily

4. Plan a display of your collection for a "mini-museum" exhibit. The criteria:

   -classified according to an attribute
   -displayed attractively for others to understand and enjoy

5. (4) Share your collection with our group. Explain your classification system.

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GROUP COUNSELING THE GIFTED

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The Need for Counseling the Gifted

Gifted children do not have a common collection of personality traits. The reasons for their need for counseling are not that they are all isolated, neurotic or anxious. The diversity of personality among gifted children is not significantly different from the population as a whole. But gifted children do, as do most other children, have a need for counseling. And their need for group counseling is particularly strong because while they do not have a common personality, they do have a common collection of problems.

The problems of gifted students can be classified as environmental, interpersonal and individual (or intrapersonal). The environmental problems usually center around school. The main problem is usually the lack of a sufficiently challenging or interesting school situation that leaves the child feeling bored, resentful or "turned off." The kinds of outside work experiences older students may be able to obtain may also be menial and unrelated to the students' interests. If a gifted student is very fortunate, s/he may have parents who are able to provide her/him with stimulation and experiences outside of the school environment but even in that case, the student may still be spending the largest portion of each day in an environment poorly suited to her/his needs. Communities could also provide enrichment or linkages to resources for the student but many do not have the facilities, and most that do have them do not perform this function. When one considers that the resources required by a gifted student may be more complex or difficult to obtain than those required by other students, the magnitude of this group of problems becomes clearer.

Interpersonal problems may form the most significant group of problems in the life of the gifted child and especially in the life of the gifted adolescent. Adolescents and near-adolescents are usually very uncomfortable with being "different." It often doesn't matter if the difference is a positive or negative quality--being different is painful in and of itself. Peers may not accept the gifted student's unique qualities causing the student to also reject and deny his/her potential. The expectations and demands of the adults in the gifted student's life may also become a source of pain. Parents, teachers, and counselors may demand superior performance by the child in all areas--ignoring the fact that the gifted (like the average and below average) have both strong and weak points. These unrealistic expectations will result in disappointment when the student is unable to meet them, and put the student in the position of being regarded in the light of his/her failures rather than successes.

Another potentially unmet expectation of adults in the life of a gifted student is that emotional maturity will be commensurate with intellectual maturity. It often is very difficult to remember that gifted children can make one feel that one is speaking to a miniaturized adult rather than a child with a child's feelings and emotions and life experiences.

Adults may also expect an intellectually gifted child to be physically inept (and a psychomotor gifted child to be intellectually inept). The adult may convey his/her low expectations to the child, resulting in the child making little effort in the non-gifted area.

Adults may also expect gifted children to be more prone to emotional disturbance or to have adjustment problems. This contradicts the expectation that gifted children are also emotionally mature; however, logic does not determine expectations. A parent may worry over his/her child's potential social isolation to the point where the child also develops anxieties. This can, of course, become a self-fulfilling prophecy.

Finally, but interrelated to the first two groups of problems, are the individual problems--those of self-concept and self-acceptance. It is not true that most gifted children have a low self-concept and the popular belief that underachieving gifted children have a low self-concept is even less true. However, especially during adolescence, gifted students may have extra difficulties with maintaining their beliefs in their own work. The usual adolescent confusions and conflicts combined with the differences apparent between the gifted student and his/her peers can exacerbate difficulties with self-acceptance. If the child's performance differs from the expectations of the adults in his/her life, s/he may also withdraw into the defensive posture that the opinion of others doesn't matter.

Some gifted students manage to cope with all these difficulties on their own. Most manage (although often with some pain) to develop coping strategies for daily life. However, dysfunctional responses are common. Students may brag, put others down, be isolated, enjoy confrontations with authority figures, withdraw, etc. Attitudes toward school and academic life may become increasingly negative and hostile. These responses interfere with both the emotional and cognitive growth of the student.

Myths about the gifted abound. (See Chart 1 for some of the most common.) These myths, half-truths and inaccuracies often stand in the way of provisions for gifted students. The students are left alone to deal with problems that they themselves may only dimly understand. And of all the provisions for the gifted, that of counseling in general, and group counseling in particular, is one of the slowest to emerge.

CHART 1

SOME COMMON MYTHS ABOUT THE GIFTED[1]

1. They can leap buildings at a single bound. A gifted student will be outstanding at everything s/he does. (Most commonly expressed by the statement, "If s/he is so gifted, how come s/he is so bad at _____" a. spelling, b. math computation, c. other)

2. Gifted children are more prone to emotional disturbance or to have adjustment problems.

3. They are apt to be physically inept. (The 90 lbs. weakling--if you break my glasses, I'll hit you with my violin case--syndrome.)

4. Gifted students don't need help. If they are really gifted they can manage on their own.

5. A person's emotional maturity should be as advanced as his/her intellectual maturity.

6. Gifted underachievers need to be pushed to try harder-- a "get in there and fight, fellows" approach.

7. They are socially isolated from other children.

8. The gifted are self-confident to the point of conceit.

Please do not be concerned that some of the myths contradict others. Myths are not rational.

[1]developed by Susan D. Allan

The Advantages of Group Counseling

The assumptions prevail that group counseling is only second best to individual counseling or that group counseling is merely individual counseling which is done in a group. The unique opportunities which group counseling offers frequently go unrecognized.

Group counseling offers students an often unusual experience in a caring, open, accepting, understanding, trusting environment with their peers. These conditions which are essential for the building of interpersonal relationships, provide a safe and secure background for the development of the interpersonal communication skills of listening to the ideas and feelings, accepting the value of all contributions, giving positive personal feedback, giving helpful criticism, and sending "I" messages rather than accusations. Besides the development of listening and feedback skills, group counseling provides a setting for the development of group cooperation, problem-solving, and decision-making skills.

The experience of participating in a counseling group diminishes the sense of emotional isolation, a common experience of adolescents, and enhances self-concept through the experience of belonging, sharing and support of the group. This sense of isolation is further diminished through the realization that others have similar feelings and problems. Self-concept is augmented by the potential for group members to help each other in dealing with their feelings and problems.

Enhancing self-awareness follows the experience of discovering and learning to appreciate each individual's qualities and values. In addition, students have an opportunity to do their reality testing within the group by receiving immediate feedback from their peers.

Group counseling offers some special advantages for the gifted. Opportunities are not often provided for the development of strengths that are not intellectual or academic in nature. Personal and emotional growth are rarely the concern of professionals who work with gifted young people, although many of their problems are related to their own discomfort with their giftedness, being different and adults' unrealistic expectations of social/emotional maturity.

It is essential not to neglect the need of gifted students to be given opportunities to confront their feelings about their giftedness and realize through interaction with their peers that many of their problems and feelings are shared. "Students may also be able to develop empathy for the feelings of others in relation to the abilities of gifted students. Finally, while virtually all students (all people?) could benefit from the development of listening, communication, problem-solving, and group cooperation skills, I have found that gifted students quickly grasp and apply these skills."[1]

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[1]Allan, S.D. "Counseling the Gifted: An Interpersonal Relations Approach"

Type of Group

There are several factors to consider when organizing a counseling group. It is important to distinguish a counseling group from a discussion group and a therapy group. Discussion groups deal primarily with information and opinions on a given topic of a cognitive rather than a personal or emotional nature. Therapy groups deal primarily with personal and emotional conflicts of members and between members and are used with people who are experiencing a high degree of distress in their lives. The goal of group counseling in the schools is not to work with disturbed or deviant individuals. Counseling groups within the schools deal with the personal, practical and emotional concerns of young people that fall within the normal range of mutual concerns and life experiences.

A second factor to consider is the determination of the focus of the group. Will the group focus on the general development of personal awareness and self-concept building, or will it address a specific problem area such as gifted underachievers, poor peer relations and social skills, or sex-role-identity problems of gifted females? The composition of the group is dependent on the objectives of the group counseling situation. The decision to limit the group to one sex or include both boys and girls will be determined by these objectives. Authorities on group counseling do not agree on a recommendation for the size of a group, but not less than four and not more than fifteen members seems to be the range. One factor affecting the decision about size should be the extent of the individual needs of the members who will be included.

Many of the group counseling experiences at George Mason fall within the rubric of the human relations classes and peer counseling program.

Program Descriptions

HUMAN RELATIONS COURSE

Description: This course is offered to high school sophomores, juniors and seniors and is designed to increase their awareness of themselves and their relationships with others. It deals with active listening, feedback, group communication and process and problem-solving skills.

Outline:

I. Explanation of Course and Introduction

II. Sense Education

III. Process of Communication

IV. Intrapersonal Communication

V. Interpersonal Communication

VI. Group Process

VII. Decision Making Skills

Course Designed and Taught by: Ms. Joan Tannenbaum, George Mason High School

PEER COUNSELING TRAINING

Description: This course is designed to improve and refine the skills introduced in the Human Relations Course. The first quarter focuses on the further development of the various human relations skills. The second quarter deals with the development of objectives and lesson plans for group discussion and demonstrating proficiency in leading a discussion group.

Outline:

I. Demonstrate proficiency in all of the following skill areas: active listening, value clarification, group process, feedback, problem-solving, decision-making.

II. Identify specific objectives for a group discussion and to develop a structured experience designed to fulfill the objective.

III. Demonstrate proficiency in planning and conducting a discussion group.

Course Designed and Taught by: Ms. Donna Fox

PEER COUNSELING PRACTICUM

Description: This course is designed to offer peer counselors the opportunity to conduct structured discussion groups with the students in the school and community.

Outline:

I. An individual practicum situation is established for each peer counselor. A specific population is identified considering factors of objectives, size, sex, and age.

II. Peer counselors meet with the instructor on a weekly basis to plan and evaluate group sessions.

III. Peer counselors are responsible for the administrative details of setting up the group: establishing a schedule of meetings, reserving the peer counseling room, notifying members of the dates and times of meetings, notifying teachers so that participants may be excused from class, taking attendance at meetings.

Program Designed and Taught by: Ms. Donna Fox

INTERPERSONAL RELATIONS COURSE

Description: This course is designed to give gifted middle school students experience and skills in interpersonal relations. Students will develop skills in problem-solving, communication, decision-making and group process. It is also oriented toward developing an understanding of the student's own abilities and the reactions of themselves and others toward those abilities.

Outline:

I. Introductions. Structured experiences to develop interactions and openness among group members.

II. Identity and Self-Concept. Readings include Bless the Beasts and Children. Discussions on identity, risks and values. Others expectations and the effect on our values and ideas. Readings include: Orwell, On Shooting an Elephant and Lytle, A Narrative

III. Group Process: Communication skills includes listening, feedback, expressing emotions, "I" messages, roadblocks to communication and active listening.

IV. Group Process: Problem-solving includes group competition and cooperation, roles played by group members and group observation skills.

V. A Self-Evaluation and Course-Evaluation

Course Designed and Taught by: Dr. Susan Allan

RECOGNIZING PERSONAL STRENGTHS[1]

Objectives: To structure an opportunity for group members to give positive feedback as well as helpful criticism to the other members of the group. To provide group members with an opportunity to receive both positive and critical feedback about personal qualities.

Materials Required: Each member should have an index card (5" x 8"), one sticky label for each member of the group, and a writing utensil.

Procedure: Group member A will spend one minute delivering a monologue on a selected topic, such as "Discuss the Person or Event that has has the Greatest Impact on Your Life."

[1]developed by Donna K. Fox

While the member is discussing this topic, the other members of the group write down five strengths or positive qualities which this individual possesses. Then, one quality should be listed as a roadblock to the actualization of these strengths. All items should be written on ONE sticky tape.

Each group member takes a turn giving feedback to Group Member A, listing the five strengths and one roadblock. Eye contact should be made while giving this feedback. Group Member A hands over his/her card to receive the sticky tape as members give the feedback.

After each group member has given feedback (and sticky tape) to Group Member A, Group Member B begins the process again.

When every member of the group has taken a turn receiving feedback, each member will have an index card filled with positive qualties and a few areas which s/he might like to change.

The following questions may be asked of the group to conclude the experience:

1. How accurate was the feedback, both positive and negative?

2. How did you feel receiving positive feedback, negative feedback?

3. How did you feel giving positive feedback, negative feedback?

4. Did you notice any behavior on the part of members which might indicate how they were feeling about giving or receiving feedback?

5. Was this a worthwhile experience for you? Why?

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CREATIVE EXPRESSION– WRITING AND THEATRE ARTS

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Offering a clinic in writing and theatre, the two resident professionals at the Henrico County Schools Humanities Center found themselves in league with Barbara Paterson, an eighth grade English teacher at Moody Middle School. Together, the team of three planned a short program emphasizing an aspect of narration-straight first or third person point of view. The projected plan for the program began with a short warm-up-writing exercise and ended with selected stories being transformed into scripts for shadow plays. The team envisioned a time frame of seven to fourteen class meetings (45 minutes each). In tandem, together and separately the team worked with the students individually and in small groups. In this way, the Humanities Center staff relied on the classroom teacher to refine or continue a procedure and vice versa. (The design for the program was prepared with the classroom teacher during her planning period prior to its implementation in the classroom. The Humanities Center staff presented an idea and the classroom teacher decided how it needed to be modified to strengthen teaching in an area of the eighth grade English curriculum. The classroom teacher read the selections of the literature used, reviewed daily procedure, etc.)

The two Humanities teachers explained the proposed plan to the students the first day. The warm-up writing began with a given series of premises and each student continued the story. The structure of the exercise follows:

Series of premises

> It's raining and cool - not icy. It's late and there's a mist. You are on a dirt road. It dips down into shadowy trees. As you enter the woods, it is dark. You have no flashlight and no matches. You are looking for a light.

This is where the story begins. Continue it. Write your first thoughts. You have five minutes.

Examples of student responses

#1 I walked awhile toward a house with lights on; the lights went out when I knocked.

#2 I am a wanderer, all wet and lost in the shadowy dusk. It is raining. I see the light of a campfire.

#3 I hear a deep groaning in the darkness. I am trying to run toward a house light. I see a hairy shadow.

#4 I am on a path I've taken a million times. There's a light moon; the wind is blowing. I hear leaves shuffling behind me. It begins to rain harder and the air is cooler. The path is rocky. I am tripping a lot. I see a light from my friend's house.

#5 I hear screeching, chirping crickets and get chill bumps all over; I see a break in the trees and a shelter ahead.

To plant the seed of a concept necessary to recognition of story structure or to reinforce that concept, the teachers had students point out that these tiny flashes were the beginnings of stories. They found

the WHERE - place or setting
the WHO - characters or people
the WHAT - events or part of plot

Next, the group and the writing teacher read and observed Graham Greene's use of third person in the short story, "I Spy." The story caught their fancy because, among other things, it is about a youngster sneaking his first cigarette. When lines from the story such as

"Charlie Stowe was frightened."
"..., and Charlie cowered in the darkness."

were contrasted with

"When they (the steps) creaked he clenched his fingers on the collar of his nightshirt."

the students saw the factor a writer must deal with in choosing point-of-view. They played author, changed the story's point-of-view from third to first person. Discovering that I (Charlie Stowe) knew things that Graham Greene, the third person writer, did not know, the students added such things as

I was frightened. My knees shook. My hair stood on end, and my heart was beating so loud I couldn't hear my mother's snores.

To further inform the students of techniques necessary for story development, the writing teacher called their attention to the first page of a chapter of a novel. In Sylvia Wilkinson's novel, A Killing Frost, the first page of the chapter titled "Writing Spider," places the reader in the setting and gives clues about the strange behavior of Miss Liz, the grandmother. On that page there are also wonderfully colorful details. With these examples before them students were directed to write a personal event in a story structure beginning with notes about WHERE? WHO? WHAT? In a following class session some reminders were in order:

1. Choose first or third person point-of-view remembering always whose story your're telling.

2. Begin to add to your notes some of the things the reader can see, can hear, can smell, etc.

These "notes" were used by the classroom teacher as a nucleus for a short story. Students were not allowed to deviate or change from the personal event begun. To encourage them to pursue their stories, a student-group story from another middle school was read. (Students quickly accept an assignment if they perceive it possible in the realm of their peer world.)

After each person had developed and expanded his story as much as he could in the length of one period, it was handed in. The story in Part I of the appendix is an example of this writing exercise.

"Bring in something from the trash in your top desk or dresser drawer" were instructions for the third writing exercise. In came an old antique car calendar, tiny toys - birds, cars, animals -, threadbare stuffed animals, a key ring, and other memorabilia of childhood. With something concrete in front of them the students easily wrote a story in first person - the first person sometimes became the voice of the object they'd brought in. Each student story was typed on a separate page with an expanse of clean white space in places in the story where the writing teacher saw there was room for development or expansion according to the techniques demonstrated in the Graham Greene and Sylvia Wilkinson stories. That white space proved to be a compelling stimulus. Students welcomed it and moved to fill it. They were encouraged to leap from reality into fantasy as they developed their stories. After the students completed that bit of development, the stories were ready for group reading and critiquing. Each group selected the most appealing story. It would be considered for transformation into a shadow play in the Humanities Center studio. Stories in Part II of the appendix are examples.

Now the work proceeded outside of classroom time. Three groups came to the Center during homeroom and activities periods. When a program cuts across regular schedules some attrition occurs. One group has completed the process and a video-taped shadow play is ready for class viewing. The other groups are continuing to work during homeroom and activity periods.

To begin the transformation from a story to a script, the theatre teacher and students first dealt with the mechanics of the story itself. For instance, they had to determine the number of scenes required to tell the story effectively. In that process, they discovered that further development or expansion was necessary for the theatrical production. Conversely, they deleted part of the narration. In other words, they were learning to deal with the visual elements, giving visual form to what they had written. In "The Shaggy Green Monster," students cut out the old garage with care so that it reflected the details of their own narration. After titles, special sounds or visual effects, moving things, etc. had to be made. Next, physical movement around the light and screen had to be considered to provide a smooth performance.

They tried acting out the narration and found it flat. At this point the students saw that dialogue was needed. Together the theatre teacher and students tried improvisation using the story line in their story as the guide. After that the group added dialogue to the story. Rehearsal within the scenes of the story and including the dialogue followed. By combining scenes and dialogue, they cleaned up the "flow" on the screen. Now they discovered that the story had to move on the screen as it did on the page. At this point the writing teacher assisted with the writing of the final script. (See Part III of the appendix.)

Next, the action was video-taped; dialogue and sound effects were taped in radio production style. However, taping is not necessary. The

teacher could have students learn their lines and rehearse the scenes for a final performance. In this way, the entire class could share in a total theatrical experience.

After the video-taping, the students saw and they began correcting their own actions. It was difficult for them to understand that everything was played on one plane close to the screen. All conversation was done in profile. Everything moved left stage to right stage, and nothing moved upstage or downstage. In the classroom a teacher might set up the screen with the light from the overhead projector. Students would experiment and discover these concepts as they move through production steps. There are three possibilities for setting up a shadow screen in the classroom.

First, set the screen in a doorway by stretching a sheet across, remembering that the light source, an overhead projector, needs to be placed so that the entire screen (sheet) is covered with light.

Secondly, a sheet might be suspended in the middle of the room. Folding screens placed on either side would prevent action from being seen by the audience.

Third, a permanent screen could be made by attaching it to a cardboard tube (carpet tube, for instance) allowing tube to extend about one to two feet on each side of the sheet. (See Part III of the appendix.) The other end of the sheet is attached to a strip of wood attached directly to the ceiling or suspended by ropes from the ceiling. In either case, the attachment should be so that the fully unrolled sheet barely misses the floor. This suspension would keep the sheet taut at all times. To provide for raising and lowering, screw eyes or pulleys could be placed in the board at the top. Soft clothes line rope could be strung through the screw eyes and brought down to the cardboard tube. Holes punched in the tube allow the rope to be pulled through. Knots tied in rope would secure it. To raise and lower the screen, make eight turns around end of the tube and pull other ends of rope. This action causes rope to unwind off tube and tube rolls up on sheet.

In two parts, the writing-theatre-English teaching team tried to give the students exercises to help them recognize the "places within themselves" or the events of their regular daily lives as material to write about. After the stories were generated, a small number of students discovered other techniques of organization as they transformed their stories into shadow plays.

In short, the plan for emphasizing a limited aspect of point-of-view followed the steps listed below:

1. Given a set of premises for a story, write the ending.

2. Make a personal experience into part of a short story, using first person point-of-view.

3. Write another part of a short story again using first person point-of-view. In this story use your "trash-treasure" as the focal point and make a leap into fantasy.

4. Transform stories into scripts for shadow plays.

5. Rehearse for speaking lines, sound effects and for physical movement.

6. Produce a video-tape.

APPENDIX

Part I

I was only eight when my grandmother Nanny went to the hospital. Two weeks later she came home. Mom said that I could go see her. What a surprise! Nanny was skinny. She used to be fat! I was told to keep quiet because Nanny needed lots of rest and noise would distract her. I was really bored because I didn't understand grown-up words.

I looked on all the dressers and saw all kinds of knicknacks, but the thing that caught my eye was a green owl key chain. I picked it up and asked Mom if I could have it. She got mad because I interrupted her! Now I know she didn't mean it because she was depressed. She did say I could have it though, so I wasn't that sad! I remember the day clearly because it was the first day Nanny was skinny. (I thought)

A year later Nanny was back in the hospital. Mom was always crying. I didn't know why. A week after Nanny went in the hospital my older sister Carol, who is a year older than me, told me that Nanny was dying. I was real sad. When I thought, "Nanny's dying," I really couldn't believe it. When her coffin lowered into the grave, I thought about Nanny being covered up underground. My knees got weak and I almost fainted.

Nine months after Nanny died my grandfather Pa died of some kind of cancer. He was really very sad and didn't talk hardly any. Then after he died, I thought about it; all I had was an old green owl key chain.

When I listen, that key chain is magical. It talks and gives me words of wisdom, and tells me all sorts of things that he has done.

--Sharen Boyle

APPENDIX

Part II

The Shaggy Green Monster

On a street far behind my house, sits an old faded gray garage. The paint is chipped. Rain and sun have left streaks along the sides. The roof was dingy red with boards nailed to it. It had a big hole at the very top where a chimney had been years ago.

The door sags on one hinge. The other hinge is laying on the dirt floor, orange with rust. The door knob is hanging loose and there's a spider web on it. There's a place at the bottom of the door where termites had been eating.

Jammie and I peeped in the hole in the cracked window. Then we entered and started looking around. Along with the parts of old cars there were boxes of all sizes. One of the boxes had the letters a-n-g-e-r that we knew the word was danger and we both got scared. We started to open one of the boxes but a rat ran across the floor and we both almost had a heart attack.

Then all of a sudden a box covered with dusty red paper, fell from the top of a pile. Out popped a little green shag monster. He had orange eyes, a black nose and black eye lids. The little monster looked up at me and said thank you. He started talking and suddenly he disappeared. To this day Jammie and I wonder where he is.

--Matt Acton
Jammie Thomas

When I was five years old, my dad took the family to an antique blacksmith shop. A man was standing at the door with a fake smile stretched across his face. I was scared, so I stuck around with my sisters, Beth and Ruth. Dad began to talk to the man. I walked up close so that I could hear what they were saying. They were talking about how to make horseshoes. They began to walk toward a big flaming thing. I followed close so that I could find out what was happening.

The man picked up a long steel thing. On the end was a horseshoe. He placed the horseshoe slowly in the flaming furnace. I watched with my eyes peeled, wondering how the horseshoe could stand the heat. The man pulled out the long steel wand, placed the horseshoe on a steel table and began to pound. When he finished, he placed the horseshoe in water. The steam was unbelievable. He pulled it out and handed it to me.

I backed away from it, so the man handed it to my dad. Dad handed it to me. On it was my name. I was excited until it began to shake. I dropped it and stepped back. I stared closely at it but kept my distance. The horseshoe was not a horseshoe any more; it was a beautiful stallion! I looked up to thank the man, but he was not there. Neither was my dad. I wasn't even at the shop, I was in a tall grassy field with this horse. I felt like I was being asked if I wanted to stay with the horse or with my family. I decided on my family, and, right away, I was back at the shop looking at a lonely horseshoe lying motionless on the sandy floor. I bent down and picked it up.

To this day my horseshoe hangs on my wall over the picture of the horse of my dreams.

--Tricia Groome

My uncle took me to an old car race. There were cars of all sorts and colors.

The gun sounded and they started off, so slowly. Suddenly a little red and blue Thomas Flyer touring car nosed through the dust. The other cars kept bumping into the little car. One front head light blinked as if to say, "Why do all the cars like to run into me?"

Roaring, bumping and chugging into the finish line, the cars made a cloud of smoke and fumes. When the air cleared, there was a bright white and red gas touring car in front. Everyone cheered. Just as the cheering died down, I saw the little red and blue Thomas Flyer trailing in last. Some people in the crowd began to boo. I clapped and cheered for the little car. Again one front light blinked as if to say, "Thank you."

I heard the owner say that after that kind of a finish, he was going to get rid of the broken down "lemon."

"I'll buy it," I hollered.

From that time on, the red and blue Thomas Flyer Touring car started to win all of its races. Every time he'd win a race he would blink his shiny head lights and wiggle his nice shiny blue hood as if to say thank you.

That little car and I were the best of friends.

--Cindy Hill
Tina Jaciuk

One day last summer I was walking along the road, minding my own business, when all of a sudden I looked down and there was this little clear plastic ball with a funny rod in it. When I picked it up, I noticed there were three hundred-dollar bills lying under it.

I picked up the money and put it in my pocket. I started to walk home. While I walked I thought, "What if this money belongs to someone who needs it really bad."

I began to feel guilty. Then I thought "Who needs it worse than me?" I didn't feel guilty anymore.

As soon as I closed the door to my house, somebody knocked. I opened the door and found this mean looking grouchy man there.

He said, "I saw you bend down on the road back there and pick up something. What was it?"

"I just picked up a funny looking rock." I told him. He looked disappointed and turned away.

"What were you looking for?" I asked.

"My magic bubble and three hundred dollars."

"Oh," I said and closed the door.

Slowly I walked up to my room. A magic bubble, how was it magic?

When I got into my room and flopped down on my bed, I thought, "Boy, I wish I could give that poor man back his money."

All of a sudden a little bell rang. I felt in my pocket the money was gone.

--Martha Trainum

APPENDIX

Part III

THE SHAGGY GREEN MONSTER

SCENE 1: TITLE

Narrator: On a street behind my house, sits an old faded gray garage. The paint is chipped. Rain and sun have left streaks along the sides. The roof is dingy red with boards nailed to it. It has a big hole at the very top where a chimney had been years ago.

SCENE 2: FULL EXTERIOR

(Change to full exterior scene.)

Narrator: The door sags on one hinge. The other hinge is lying on the dirt floor, orange with rust. The door knob is hanging loose and there is a spider web on it. There is a place at the bottom of the door where termites have been eating.

SCENE 3: BROKEN WINDOW EXTERIOR

(Change to window and push boxes in.)

Narrator: To the right of the door, the wind whistles through a hole in the broken window pane. Jamie and Matt peek into the hole of the broken window.

(Boys peek through the hole in the broken window.)

Jamie: I wonder what is in all those boxes.

SCENE 4: PILE OF BOXES

(Change to full view of boxes.)

(Boys enter. Hinge creaks, loose door knob falls on ground with a clunk.)

Matt: Here's a box with a bunch of old rags in it.

Jamie: Here's some small tools and a jack with a broken handle.

Matt: There's a box over there with some letters on it. I can hardly make them out - A N G E R .

Jamie: (Peering over Matt's shoulder) The word must be D A N G E R !

(Both boys peer into the box.)

Matt: It's a can of gasoline!

Jamie: Shucks, that won't hurt you.

(Both boys fall back knocking the boxes over.)

SCENE 5: THE SHAGGY GREEN MONSTER

(Raise monster's head out of the top of one of the boxes.)

Monster: (Blinking his eyes up at the boys) Thank you for letting me out of this box. Mike left me here the last time he worked on his '65 Rambler.

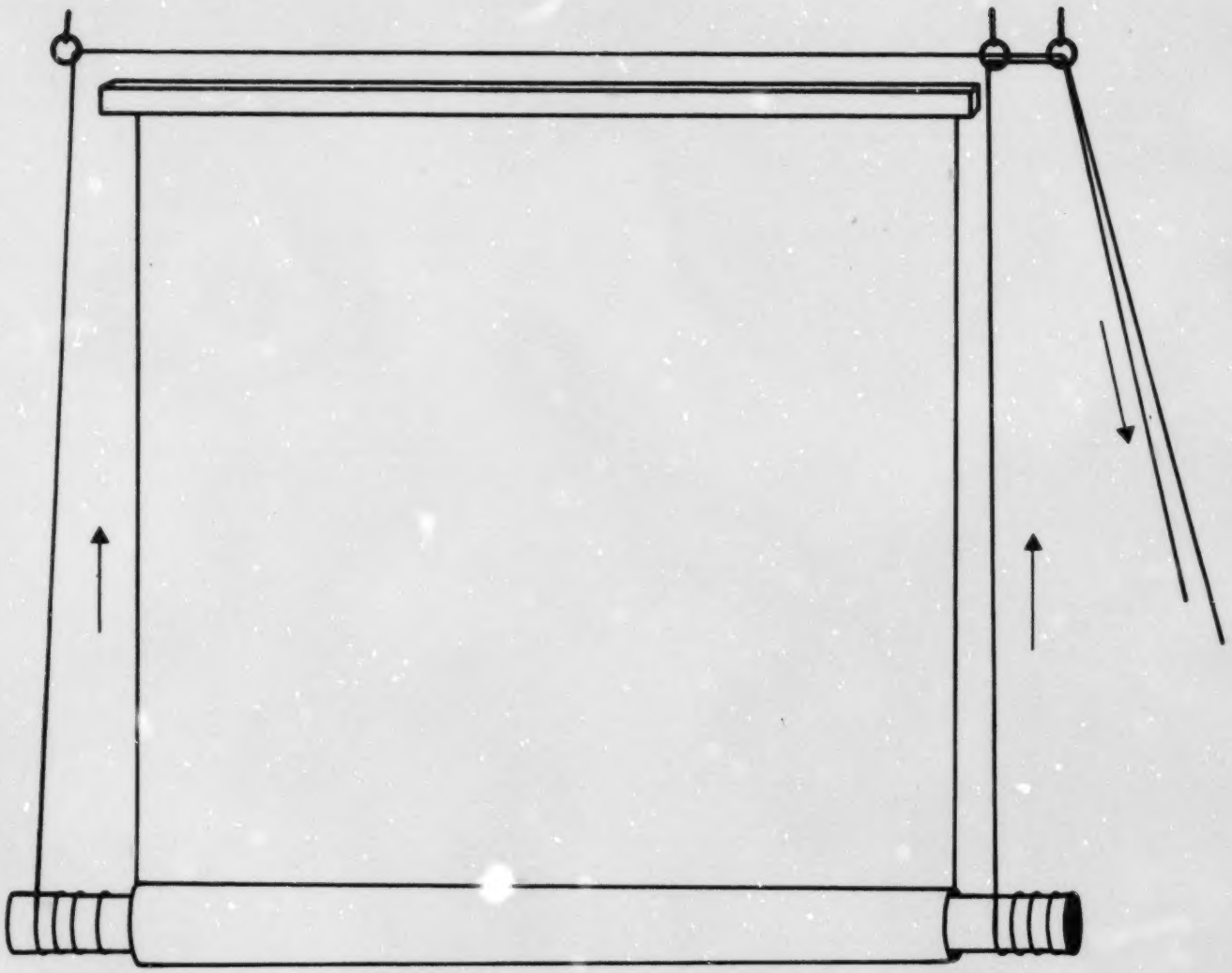

DIAGRAM FOR SHADOW PLAY SCREEN

10

PARENT AND TEACHER EFFECTIVENESS TRAINING AS THEY PERTAIN TO THE GIFTED

Marty S. Rourke

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Parent Effectiveness Training and Teacher Effectiveness Training are designed to increase communication between parent and child or teacher and student to allow each involved to actualize his/her potential through mutual problem solving and mutual respect for each other's needs. T.E.T. and P.E.T. have been designed by Dr. Thomas Gordon, a Clinical Psychologist, and president of Effectiveness Training, Inc., which provides a nationwide network of professionals offering training for youth, counselors, parents, teachers and administrators in communication skills. In the ensuing paragraphs, concepts and skills offered in P.E.T. and T.E.T. will be emphasized.

Parents and teachers of gifted children respond well to the honesty, open communication and problem solving techniques which are emphasized in all aspects of these programs.

Problem Ownership

One of the most important aspects of the T.E.T. and P.E.T. programs is to define problem ownership. Jan feels she is too fat; Bill has a headache and is very quiet; John did not do well on his baseball team; Suzy has a small cut on her foot; and Judy lost $1.00 of her own money. These are all problems owned by the above individuals and should not be owned by anyone else. Likewise, John is talking loudly and disturbing your sleep; Judy is constantly talking out and disturbing the class and Jack is constantly running into others on the playground and knocking them down. These are problems owned by parents and teachers.

Active Listening

In the situation in which a child or student "owns" the problem, the teacher or parent should not rescue the child. Their job is not to find a way for Jan to get thin, to talk to the coach immediately about why John does poorly in baseball or to give Judy $1.00 to make up for her loss. Rescuing a child prevents the child from maturing and it increases dependency on adults.

Listen to the child: repeat in some honest and caring way what has been told to you. John says that he never gets to bat, that none of the players want him to bat. The adult replies with a phrase such as, "You really feel bad when you do not get a chance to bat." He answers that he does feel badly and possibly relates what is really bothering him. To that response the parent/teacher can continue with, "You feel you do not know how to bat," hoping to continually draw out the child and possibly get him to suggest ways in which he can solve his own problem. If the time is right, the teacher or parent might engage in problem solving techniques discussed in a later paragraph. Active listening includes responding to both the facts and underlying feelings of a message sent to a receiver.

I Messages

When someone is preventing the teacher or parent from getting his/her needs met, such as Judy's constant talking in class or her interrupting when the teacher or parent is talking, verbally chastizing the child or blaming him/her for your not getting your message across frequently results in the child storing up resentment toward the adult. Instead, give the child an "I" message including your feeling, the behavior of the child, and the effect on you of what the child has done. For example, "I feel frustrated when you constantly interrupt me because I cannot get my lesson across to the other students." Giving the child a reason why his/her behavior is unacceptable to a parent or teacher results in a greater chance of the behavior not being repeated. Simply telling the child to be quiet may result in confusion. The child's perception of "quiet" and what is unacceptable may be different from the parent's or teacher's perception of "quiet" and what is unacceptable. Be as specific as you possibly can when trying to change behavior.

Problem Solving

When parents or teachers own a problem and have sent the "I" message to the child who is preventing them from getting their needs met but the offending behavior persists, they should send another "I" message or a problem solving technique, Method III, may be used. Method III includes defining the problem; brainstorming solutions by both the adults and children; choosing a solution(s); writing a contract; and meeting at a mutually agreed upon time to discuss the implementation of the agreed upon solution(s) or to hold another brainstorming session to determine new solutions to the problem. In Method III, both the child and teacher or parent get their needs met. The chance of resentment of each other is reduced. The teacher or parent does not use power on the child.

In Method I, the teacher or parent tells the child what to do, such as to stop talking. The parent or teacher wins while the student loses. Resentment begins to build. In Method II, the parent or teacher allows the noise to continue although he or she is definitely bothered by it. The child wins which builds resentment in the adult toward the child. The adult then takes out this resentment on the child in many ways. In Method I, the parent or teacher uses power on the child. Method I is not always to be avoided. Sometimes it must be used immediately, but an explanation should be given later as to why it was necessary for the child to change his/her behavior.

Honesty

Being there and listening to a child is so important. Silence, active listening, head nodding all indicate to the child that you care. Gifted children often have problems that need to be "vented." Do not judge, tell the child what to do, probe, blame, and so forth, when you are sought out to be a listener. Just listen. Later, assisting the student or child in problem

solving may be helpful. Remember, if you tell the child what to do and it does not work, you may be blamed. Let the child try to solve the problem himself or herself with your assistance. That is a part of growing up.

Labels

When the teacher or parent tells the child what is bothering him or her, be specific--refer to specific behaviors, not labels. The term discourteous is a label. Talking when I am talking is an example of a specific behavior. Other examples of "label words" are: impolite; noisy; smart; and relaxed. Peoples' perceptions differ on these terms. Speak in specifics, not labels.

Positive I Messages

If a parent or teacher wants an act of behavior to continue, use a positive "I" message. Tell the child(ren), "I really like (feeling) when you exit without making a sound (specific behavior), because you won't bother other classes and I won't be asked by the other teachers to keep my class from making noise (effect on me). Positive "I" messages should be used frequently to reinforce behavior you wish to be repeated. Gifted children respond well to these messages.

The above are just a few of the concepts and skills involved in T.E.T. and P.E.T. P.E.T. and T.E.T. skill usage by the parent or teacher will not automatically result in perfect communication--all problems being resolved. However, it is another way to look at and engage in communication. Hopefully, the usage of the P.E.T. and T.E.T. skills will result in positive and effective communication between parent, teacher and child.

STRETCHING MENTAL MUSCLES THROUGH SOCIAL STUDIES

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Social Studies, perhaps, more than any other discipline lends itself to a variety of thinking kinds of activities appropriate for gifted children. The subject matter covers such broad spectrums that every child can benefit, learn, and enjoy during Social Studies class, provided the teacher avoids rigid, fixed teaching methods. Further, Social Studies is a subject that lends itself to student input and student planning.

The secret of teaching Social Studies to gifted children is to allow the students to range as far as they wish in a particular subject area and to have a say about how a subject will be developed and pursued. However, teachers who elect to approach Social Studies in this way need to do their homework well, before they allow the children to become involved. The plan calls for careful organization, on the part of the teacher, and thorough preparation. Once the project is launched, the teacher must stay on top of what is going on in the classroom. At the same time, if the teacher has agreed that the children are responsible for developing and studying a unit, he/she must allow the children the autonomy they have been promised. However, he/she must be able to step in, if the children begin to founder, at the right time, and in such a way that the children do not feel that they have failed or are being denied the right to pursue a topic in a way that they wish.

Teacher Preparation

The teacher must:

1. Be familiar with as many aspects of the subject as possible;
2. Assemble, or know where to find, a large number of resources (the more variety the better);
3. Make a plan for a central theme around which a unit will revolve so that the class project has continuity and cohesion;
4. Make a plan for helping students develop a unit;
5. Make a plan that will enable her/him to guide and evaluate students continuously.

Continuity and Cohesion

Once the teacher has made his/her necessary preparation, the teacher must:

1. Present the topic to the children with a good, concise overview;
2. Allow every child to write down at least three areas of interest, in the topic, he/she would like to pursue;

3. Brainstorm with children on a theme for unit;

4. Brainstorm with children on what aspects of topic should be included in every child's study;

5. Develop, with class, a variety of ways in which a topic may be studied;

6. Develop a plan with class on how all individual efforts may benefit the whole class;

7. Develop, with class, a number of class activities so that the group will not become too fragmented;

8. Develop a conference and record keeping system with each class member at regular intervals;

9. Decide, with the class, on certain ground rules:
   a) due dates
   b) use of time on particular days
   c) evaluation instruments

10. Develop meaningful culminating activities, based on the things the children have chosen to study.

The presentor is convinced that the way to really stretch those mental muscles that all gifted children need to have stretched is through active and continuing student involvement in whatever students are studying. The following topics have been done in the presentor's classes very successfully with high student involvement:

The Webb
A chronological approach to history which includes cause and effect of the past, the present and the future.

The Renaissance
A study of other gifted people with emphasis on how a particular period in history helped or hindered their giftedness.

The Treasure Hunt
A field trip that involves no guides at the Smithsonian. Children must do all the work.

Hypothesis
Children learn to build hypotheses using facts and statistics. They come to realize how such instruments may be manipulated.

Economics of the World (Future Study)
This is an exercise on learning how economies function around the world and what the future of the world may be, based on present economic trends.

All of the topics listed on the previous page were developed by the presentor with high student involvement. The great advantage of this approach to Social Studies is that:

1. Students are able to study independently and indepth those things in which they are really interested;

2. Students are much more conscientious about following guidelines and work plans that they devised, rather than one imposed arbitrarily by a teacher;

3. The learning by all involved, including the teacher, is infinitely greater than when the entire class pursues one topic or one approach to a topic.

One of the most deadly things some educators do to Social Studies, in the presentor's opinion, is to assign children to read certain sections of a Social Studies book and then answer the questions at the end of the chapter. This is uninspiring teaching for any child and for the gifted it is absolutely unacceptable. Many very bright children simply refuse to do this kind of assignment. Equally boring, to the very bright child, is to be assigned a report that has very specific and limited guidelines. The teacher, in effect, is saying, "learn this much, but don't bother to learn more."

The Social Studies teacher of gifted children is not a teacher in the traditional sense. He/she is a facilitator of learning. The presentor pictures herself as a guide in a Hall of Unlimited Learning. She, herself, has not been down all the corridors, but she is able to direct seekers of particular knowledge to the correct hallway. Further, she is available to her students for discussions and assistance in evaluating particular aspects of their learning. Finally, students who learn in this manner are able to share a rich variety of information with their fellow students.

Working with gifted students is a constant challenge. They do need to stretch those mental muscles. Allowing them to do so through Social Studies oriented activities--activities they have helped to plan and create--has been one of the most rewarding and stimulating experiences the presentor has ever had. The results have been well worth the careful preparations necessary for this kind of approach to succeed.

12

DIFFERENTIAL STRATEGIES ALLOWING FOR OPENNESS IN EDUCATION

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Today we hear more and more about the necessity for individualizing encounters which allow all students freedom to learn. It is felt that administrators, teachers, the curriculum and expected behaviors of children should all be given more latitude in order to do this. The school itself is changing by providing open space, individual study, independent projects and release time for both staff and students to "do their own thing."

However, within this philosophy of informality in education, many constraints are being placed upon educators and students by a system whose quest is for accountability. Teachers, administraotrs and students are expected to act as free agents on the one hand, while on the other being monitored by someone or some agency.

What, then, are the roles administrators and teachers play--either out of necessity or by choice--within the constraints of this system?

There are nine sets of differential strategies which appear to be necessary as administrators and teachers make attempts to informalize education. A strategy is a course of action, a plan or a definite approach or purpose. The term "differential" implies a means for deriving distinct character, or a way to discriminate in a different manner. Thus, this article will outline these nine different approaches or distinct courses of action teachers and administrators must take together if provisions for informal education are to be effective.

First let me list the nine sets of differential strategies which allow for more openness in education. These are strategies teachers and administrators use:

- as learning encounters with students.
- with teachers.
- with administrators.
- for curriculum design, program changes or innovation.
- for identifying and measuring multidimensional talents among children, and for counseling and guidance purposes.
- in dealing with themselves.
- with the school board, parents and the community.
- for establishing a school and/or classroom climate most conducive to learning.
- for designing, implementing and assessing new theories or models for learning and teaching.

Let us explore these nine differential sets of strategies in greater depth.

1. Differential strategies teachers and administrators use with students during learning. It is now recognized that both non-negotiable and negotiable competencies of students should be considered. Non-negotiable competencies, of which there are only six, develop and encourage skills comprising both the cognitive and affective domains. These are: learning to

read, learning to write, communicating effectively, learning how to think, learning to feel satisfied with one's self and learning how to get along with one's self and others. Such competencies should continually be emphasized for preschool through higher education and on into the world of work.

Everything else as goals and objectives of education should be negotiated according to the needs of each child, and these should be continually recycled as the person grows, matures and changes. The whole and varied range of negotiable competencies include opportunities and processes of aesthetic appreciation, psychomotor skills, vocational skills, many academic and professional talents, the creative-productive processes and decision-making factors of evaluation.

Some rather new strategies have proven worthwhile for integrating non-negotiable with negotiable competencies. These are some of the teaching strategies from the Cognitive-Affective Interaction Model developed and designed by Williams* as an outcome of the National Schools Project. They are things teachers do or media teachers use in the classroom as means, across subject matter content, toward an end of fostering certain thinking-feeling behaviors of students. They are:

- Causing students to sense deficiencies or inconsistencies in knowledge or behavior. This is a strategy of not always dealing with well-trodden knowns, but taking a look at what is not yet known. This is a course of action in dealing with gaps, missing links or unknown elements of knowledge.

- Providing opportunities for coping with change. Here the strategy is that of showing how nothing is ever static, but is continually being modified and changed. The course of action by the teacher is providing many opportunities for students to make alterations and modifications, or seek substitutions or alternatives.

- Providing an organized random search by using a familiar structure to lead randomly to a different structure. The strategy is to use an example or analogy as an organized pattern within which students have the freedom to explore at random for a whole new set of outcomes. Here the freedom-structure dichotomy appears. It is well known that pupils who are given much freedom and permissiveness--but not given clear expectations or responsibilities--are generally frustrated and puzzled. People need structure within which to work and learn as they struggle to become themselves. However, they likewise need freedom which will allow them to explore and, perhaps, modify or readjust the structure. Independence and

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*Williams, Frank E. Included in A Total Creativity Program for Individualizing and Humanizing the Learning Process. A program of ten components for elementary teachers. Englewood Cliffs, N.J.: Educational Technology Publications, 1972.

freedom to be creative should not be confused with lack of responsibility or structure. The fourth "R" in education is prevalently becoming known as "Responsibility."

- Developing a tolerance for ambiguity by deliberately posing blocks during the learning process which require pupils to toy with and manipulate information or data and their feelings about both. This is a course of action that provides encounters which puzzle, intrigue or challenge the learner by open-ended situations which do not force closure.

- Allowing for intuitive expression by showing students how to care for and nurture their inward feelings about things. This is a strategy for developing the skills of expressing emotion without fear or guilt. The course of action is to make pupils sensitive toward their inward hunches and nudges about things they learn and their own personal interaction with them.

- Providing for the development from--rather than an adjustment to--a theory, concept, fact or plan. In an already over-developed, success-oriented society, this is a strategy which teaches how unsuccessful acts or decisions can be turned to successes. The course of action is to examine how failures or accidents can be made to pay off; how to learn from mistakes; and how to accommodate processes of development, rather than adjust to things already developed.

- Allowing for and encouraging the evaluation of situations by asking students to check their ideas against the facts. This is a strategy which sets an expectation for extrapolating, predicting and verifying things in terms of their consequences and implications. The course of action is to have pupils establish their own base level for judgment, set criteria, and then go through the process of making decisions in accordance with their pre-established base level.

2. Differential strategies teachers use with other teachers. This is set of strategies teachers employ as they interact together. They involve a means for staff-cohesiveness in times of change--innovation and success as well as in failure. One of the unique features of the National Schools Project was the employment of the total school staff concept. If a school was to innovate and change, 100 percent of the staff was to be involved. For those who did not care to work for the innovation or to face change, an alternative was explored, and they were encouraged to transfer to another school whose climate was more in keeping with their own temperaments. There was no stigma attached to those few teachers not wanting to be a part of change. Neither was the work of the school and the ability of the complete staff working on implementing new programs to be interfered with by a few people dragging their feet. Change and innovation will be enhanced by a complete, totally involved and committed staff.

3. Differential strategies teachers use on administrators and administrators use on teachers. It is rather unusual to hear of a school where principal and staff agree on the goals and methods of education and lend mutual support to both. However, both are necessary, if exemplary educational programs are to survive. Pity the lone teacher, or small group of teachers, who gets excited and "turned on" about something new and wants to try it out in a system not ready to accept change. What happens?--Nothing! Teachers cannot, nor will not, buck the system; the system must change with them in order to help accommodate any innovation. The key person to implement change and innovation is the building principal. Without his or her support by total commitment and involvement, anything new that teachers try will undoubtedly make little impact. New strategies involving a team approach are necessary as both administrators and teachers work wholeheartedly together in solving the tremendous problems facing education today. Innovation should not by synonymous with isolation. Teachers need a system which supports them; administrators can create such support systems by interacting closely with those willing to push and break boundaries of conservative traditionalism.

4. Differential strategies teachers and administrators use for curriculum redesign. The newer concepts in education of open-space, ungraded schools, nongraded materials, process-oriented curriculums, knowledge structure in concept clusters, heuristic teaching, individualized instruction, etc.--all require a different set of strategies than heretofore used. Curriculum designs which pose threats for conventional teaching by authority impose new courses of action on the part of administrators and teachers able and capable of changing. The curriculum and the teacher can no longer identify and dispense everything a pupil needs to know--at least in the nonnegotiable areas. Administrators and teachers must be sensitive and patient while they wait and guide.

5. Differential strategies that administrators and teachers use for identifying and measuring multidimensional talents of students. There are a whole host of talents and potentialities of students that are in desperate need of identification before diagnostic programs can be prescribed and carried out on an individual basis. New strategies of observation are necessary as specific processes and behaviors of students are identified according to their appearance. Then measurement by test devices in order to confirm these observations is recommended. By so doing, the fall or de-emphasis of intelligence and achievement testing is occurring simply because it is now recognized that this kind of testing is restricted to measures of the cognitive-convergent variety. There is a serious need for tapping many other talents and special abilities of students, particularly those of a divergent variety in many affective areas. Administrators and teachers must together learn new strategies for observing and measuring a multitude of cognitive-affective areas. Self-direction, self-concept, self-esteem, temperament and personality variables, values, independence and interdependence are all very important, but rather new, talents which must be found out and understood before designing individualized programs both in the cognitive and human areas of learning. There is a great need for educators to help develop and encourage many neglected talents as well as strengthening and sustaining many other existing abilities of all pupils.

6. Differential strategies administrators and teachers can use in dealing with themselves and their school practices. There are now research findings to substantiate the fact that the better a teacher thinks of himself, the more willing and capable he is to release and individualize learning of pupils. Higher self-concept of teachers relates significantly to teaching practices in the classroom which elicit divergent and decision-making capacities of students. Low self-concept of teachers indicates classroom behaviors of the traditional type which deal in giving knowledge and asking for memory-recall processes of students. There are a number of new strategies which administrators and teachers need to learn when they are willing to face themselves. If ever there was a creative challenge in education, it is that of now facing change in a constructive way. New courses of action are needed as edcuators learn about their own attitudes, personalities and temperament modifications when adjusting to accounting for themselves and their own personal behaviors on the job. A whole new series of differentiated strategies are called for when administrators and teachers are able to look at themselves as they strive to meet this challenge.

7. Differential strategies administrators and teachers us in dealing with parents, the community and the school board. In regard to professional ethics, educators no longer have to feel guilty, make excuses or be defensive about things they are doing in school. By simply leveling with parents and community groups by telling them what learning is all about and the many good, positive things happening in education today, educators should not have any reason to feel alienated nor estranged from lay people. Now is the time to use a whole new set of public relations strategies which outline the vital purposes of education as developing the intellectual, thinking capacities of students while dealing concurrently with their emotional, feeling dispositions. There are some strong programs in education which are doing these things. As professionals, we should let it be known that these are our basic purposes and admit that we may need help from other community services or the home and parents in dealing with social, physical and spiritual needs of children. There is a need for a differential set of strategies in reporting learning progress of students, particularly those of the affective variety. We should be able to report on the development of capacities within children calling for their curiosity, imagination, abilities for the effective functioning of themselves, and towards others, self-sufficiency and self-directiveness. These are all accountable competencies that educators must learn how to report upon to parents, the superintendent, the school board and the community in a positive, professional way. Because these kinds of things are taking place in schools across the country, why shouldn't we talk about and report them?

8. Differential stratgeies for establishing a conducive learning climate. In order to establish the atmosphere or climate most conducive for optimum learning, a new set of integrative strategies between head knowledge and heart knowledge is required. Thinking is what goes on in the mind by use of head knowledge; feeling is what goes on in the soul by use of heart knowledge. Neither can be separated, and both interacting together are of equal importance. To cause this to happen in school requires a set of strategies which individualizes and humanizes learning encounters. This

involves setting a climate in school where it is fun to learn, because students realize that education is not solely cognitive in character. There is also a respect for freedom and feeling in an atmosphere which allows for personal and emotional responsibility. When pupils learn how, and it is expected of them to set their own behavioral objectives, they will be less resistant to complete freedom with accountability.

9. Differential research strategies for dealing with theories and models of teaching and learning. There is a whole set of action research strategies for designing, implementing and field testing a variety of ways to teach and to determine how children learn. Teachers should be trained how and allowed to handle new ideas, form a plan of action, collect some data, and diagnose what happens. It is currently known that there are more theories than can possibly ever be put to practice in education. The whole area of the practical installation of some of these theories is mandatory. This is the purpose for a set of differential strategies which provides educators with tools for efficiently handling research processes from a practical point of view.

Conclusion

This article has attempted to list and discuss nine differential sets of strategies which help to informalize education. No longer is a teacher able to escape from the world of reality behind the walls and closed doors of a classroom. Those doors are under demand to be opened, or are completely non-existent. How, then, does a school and its staff operate so that an informal, open approach to learning for each pupil is guaranteed? Nine differential sets of strategies may be an answer.

13

DEVELOPING THE HIGHER THOUGHT PROCESSES

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Guilford and Bloom blend together to encourage the gifted students in Hardy County's Project I.D.E.A. to develop the higher thought processes. They select their own topic and objectives for an independent study. Students can choose any topic and they begin by thinking of as many questions as they can concerning this topic. The students must then use Form No. 1, "Key Words for Stimulating Different Levels of Thought," in selecting objectives from each of the five different categories:

1. Memory
2. Translate, Interpret
3. Analyze, Apply
4. Create
5. Evaluate

The categories are based on Bloom's Taxonomy and Guilford's processes from the Structure of the Intellect. Once the students select and record the objectives on a written contract (See Forms No. 2, 3, & 4) with the aid of the resource teacher for the gifted, he proceeds to select specific concrete methods or products which will prove he has met the objectives from the five categories. These methods or products may take the form of written or oral reports, plays, poems, mobiles, scrapbooks, tapes, T.V. shows skits, dioramas, etc. Then the child must list the specific activities which will enable him to meet the objectives. After selecting relevant materials; he decides how many pages he will be able to read, how many filmstrips he will be able to see, how much he'll be able to do on each product or method he has chosen. He records this on Form No. 3. The younger child in the primary grades should consider only what he thinks he can do weekly and usually he sets his sights too high. However this in itself is a valuable learning experience. The older child might be more able to consider what he is capable of producing over monthly periods but it's usually better to break it down into weekly time slots. Form No. 4 is used to record the activities, the date they should be done and when they are actually completed. Copies of the completed contract are made for the child, the resource teacher for the gifted, the parents and the classroom teacher. The child meets twice weekly for half-hour periods with the resource teacher who helps the child with any problems or questions. At the end of the study which for elementary students usually lasts nine weeks; the child shares the products, materials and methods used in meeting his objectives during a group presentation time. All the children in the school's gifted program regardless of age meet together for this sharing time. The student and the teacher then use Form No. 5 to evaluate their study. Copies of the teacher and self-evaluation Form No. 5 and Form No. 4 are then sent to the parents and the classroom teacher. The teacher and the child carefully go over the objectives selected from the five different levels of thinking attempting to evaluate how well he has met his objectives and whether he is developing the higher thought processes.

1. MEMORY	2. TRANSLATE INTERPRET	3. ANALYZE: APPLY	4. CREATE	5. EVALUATE
State	What things are alike?	What conclusion?	Suppose	argue all sides
Does	Compare	Form a hypotheses	design	will it work?
Who	Distinguish between	Discover	compose	defend your position
When	What do you deduce?	Search for	imagine	according to your understanding
What	How can we judge?	Find	devise	challenge this statement
Where	What do you infer?	What is necessary	What do you think?	What are the ethics of
Name	Tell why	Under what circumstances?	What is possible	What conclusions?
Tell	Give your opinion	Explain	take a guess	Is it good?
How many	Summarize	How can you use it?	what alternative?	rate in order of your preference
Define	Find the evidence	The evidence is	how many different ways?	judge on the facts you know
Spell	Interpret	Illustrate	create	does this solve the problem?
List	What is different?	Make use of	what would happen if?	is there a better solution?
Can you remember?	Rearrange	Demonstrate	how would it make you feel?	How could it be done differently?
Describe	What is an alternative solution?	Tell the consequences	solve this	Which do you like best?
Identify	re-state; reconstruct	In what ways?	how many new ways?	What do you think will succeed?
Relate	explore; organize	How could?		To prove your point, how do you rate it?
Observe	Collect & organize data	Classify		Criticize
	Coding	Hypothesize		
	Interpreting	Look for assumptions		
		What solution		

My Independent Study

Term _____ Date _____

Name _____ Age _____

School _____ Grade _____

Program Special Education - Project I.D.E.A. - Gifted Program

Topic _____

Main Goal _____

_____

(Please include finding out as well as doing.)

List at least 5 things you will be able to do as a result of your study. In order to emphasize thinking skills from each of the 5 thinking categories from simple to complex, please select at least one goal from each of the 5 different categories. (See attached thinking skills form.)

Objectives

I will be able to

(Memory) 1. _____

_____

(Translate) (Interpret) 2. _____

_____

(Analyze) (Apply) 3. _____

_____

(Create) 4. _____

_____

(Evaluate) 5. _____

_____

Evaluation

At the end of the study, I will prive I am able to do or have done the 5 objectives by

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

Will you be able to measure whether or not you will be able to do the things you listed in the objectives? Try to state what you will be able to do in measurable terms. Then when you have to evaluate yourself to determine whether you've met your objectives or goals, your job will be easier for you. However, the most important goals and experiences in life are seldom measurable. For instance, how would I measure a goal such as "becoming a more sensitive person to the needs of myself as well as others." How do we measure faith, love, tolerance, patriotism, etc.? So if you have an important goal but it may be difficult to measure; please don't delete it from your study. It may be the most important of all.

Activities

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

6. _____

_____

7. _____

_____

Form No. 4

My Organizational Study Chart

Week	Activities	Goal	Due Date	Completion Date

As you complete each week's activities, color in your chart and write in the completion date. When the chart is completely colored in you can go on to a new study.

Individual
and
Group Evaluation

	Excellent	Good	Average	Fair	Poor
Organization of Presentation	5	4	3	2	1
Accomplishment of Goals	5	4	3	2	1
Promptness	5	4	3	2	1
Ability to share clearly ideas gained from study	5	4	3	2	1
Creation of new ideas or product for an elementary school	5	4	3	2	1
Neatness	5	4	3	2	1
Bibliography	5	4	3	2	1
Accomplishment of Activities	5	4	3	2	1

Comments:

14

DEVELOPING WORK–LEARNING OPPORTUNITIES FOR THE GIFTED

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Work-learning--what is it? It is any kind of school-sponsored work experience for credit or pay or both (or occasionally, neither!). It is not an educational arrangement deliberately designed for secondary level gifted and talented students. My orientation to work-learning is direct experience with an undergraduate program at a selective private liberal arts college and indirectly with other undergraduate, graduate, and adult learning programs throughout the country. I am encouraging you to follow with me that wonderful suggestion in the Saul Bass film Why Man Creates: let us be about the business of "looking at one thing, and seeing another." I see tremendous potential in adapting what has been learned about work-learning in other contexts for use with your secondary school gifted students.

Some variants of work-learning might clarify the concept.

Work-Study

Typically part of the day is spent in formal classroom study and part on the job. Many of your high schools may have some students involved with work-study in the business education department, trade and industrial program, or other vocationally oriented programs.

Cooperative Education

Usually this pattern of work and learning alternates full-time schooli with full-time work experience in fairly large chunks of time--a quarter or a semester in length.

Internship

The duration is variable but a central feature of this approach is a project orientation. The student worker is not simply slotted into a position but a particular task is expected to be completed. The student worker could be said to be more like a consultant under contract for a particular piece of work than like a regular full-time employee. Since I like the independent responsibility this arrangement implies, I will use the term "intern" instead of student worker, student volunteer, co-op student, work-study student, or the like.

Courses with Practicum, Field Experience, or Community Service Components

Any number of courses include a work or service element in which it is intended that theory and practice will inform each other. ACTION's National Student Volunteer Program packet entitled High School Courses With Volunteer Components details twelve case histories of this type of work-learning. Readers of these proceedings may have a free copy by contacting me at (703) 433-6337 or James Madison University, Harrisonburg, Virginia 22807.

RATIONALE FOR PROVIDING WORK-LEARNING OPPORTUNITIES GENERALLY

Work-learning experiences can meet multiple goals. The motivation for participation in such an experience may be providing service to others, acquiring skill training, meeting manpower needs, gaining educational experiences, enhancing personal growth, earning financial aid, enriching career development, exercising social responsibility or any of a number of combinations of these. The essential difference between work-learning and classroom learning is that the activity does more than meet a learning goal. If they are well designed, work-learning opportunities will allow the intern to make a difference in the lives of other people. That is very exciting and very motivating. A student is not participating just to learn something or just to get a grade in a course; he or she is participating to have some impact in the real world.

Work-learning experiences are consistent with emerging learning theories. You might be familiar with some of the work of the educational sociologist James S. Coleman. Equality of Educational Opportunity, 1966 (Coleman Report) and Youth: Transition to Adulthood, 1973, (sometimes called Coleman II) have received wide reading. Less well known in his work on simulations, games, and experiential learning while at Johns Hopkins University. He explains experiential learning this way: step one is the action itself, step two involves understanding the particular, step three encompasses understanding the general principle, and the fourth and final step is application in new circumstances.

A somewhat more graphic explanation of experiential learning has been offered by David Kolb and Ronald Fry in an article in Theories of Group Processes edited by Cary Cooper in 1975.

THE EXPERIENTIAL LEARNING MODEL

Concrete Experience

Testing Implications of Concepts in New Situations

Observations and Reflections

Formation of Abstract Concepts and Generalizations

These are not very fancy characterizations of learning and it can be argued that they are not even new. Both theories are similar to the process of logic known to the ancients (and contemporaries) as induction. But they can explain why work-learning can offer a method for knowing which is more difficult to provide in a classroom.

RATIONALE FOR PROVIDING WORK-LEARNING OPPORTUNITIES FOR THE GIFTED AND TALENTED

In addition to the benefits to learning generally, provision of work-learning opportunities for gifted and talented young people is one way to offer "type III" enrichment experiences as outlined in Joseph Renzulli's enrichment triad mode. "Type three" activities are investigations of real problems. The learner is placed in the role of producer of knowledge, not consumer. For example, a student would be equipped with some background in historiography and be expected to do original work in history, as opposed to reading outstanding histories. The idea to see that students have an opportunity to think, feel, and act as the first-hand inquirer does in the physical sciences, architecture, the literary realm, the law, the performing arts, or what have you. A real job in the real world can be a very useful way to nurture production of knowledge and taking on the role of thinking, feeling, and acting as does the professional involved in creative activity.

HELPFUL HINTS

(1) The employer or mentor needs your help in designing the assignment or internship. The individual who agrees to oversee a student worker in, for example, a law office, architectural firm, or a newspaper office is not going to have a very solid idea about what kinds of responsibilities a bright teenager can handle. You and the employer need to establish appropriate expectations based on the employer's needs and the student's skills, interests, and limitations. The brainstorming activity of this session is included to provide some practice in generating a list of responsible tasks for the intern to undertake.

(2) The intern is there to benefit the organization or individual, not just to have "exposure" to a certain kind of enterprise. If the internship amounts to little more than an extended field trip, the employer and intern will have missed an opportunity to get some production out of the experience. All parties need to be reminded that output of some significance is part of the deal.

(3) Disappointments, misunderstandings, and general foul-ups can be minimized if expectations are carefully negotiated and followed by a simple written description of who is responsible for what. If you enjoy the continued good will of an employer for different interns over time, make sure each intern's assignment is designed individually instead of assuming the current internship is simply an extension of the last one.

(4) Since you have a stake in the outcome, continue to monitor what is happening with site visits, appointments with the intern, and brief conversations with the employer. Supervising an internship can be regarded as analogous to growing a garden: after you have planted the seed you usually can't ignore it until harvest--intervention is needed to overcome

drought, harmful insects, and weeds in the case of gardening and intervention is needed to prevent any number of missed opportunities in the case of monitoring an internship.

(5) Work permits for minors and other legal requirements can be met through persistent application of energy and imagination. Suppose you want to place a fifteen-year-old with a chemist in a pharmaceutical lab. Be very careful about your wording when calling the youth employment officer at the Virginia Employment Commission to find out what the law permits minors to do. The word "chemist" will send a finger down a list until it lights on "dangerous chemicals," and the response will likely be "not possible until a person is sixteen." It may be necessary to be devious just short of the point of being deliberately misleading! Reference to pharmacy rather than chemistry might produce the answer you want.

Do not ask "Can it or can it not be done?" Ask instead, "How can it be done?" This approach should be used in gaining permissions of various sorts from your school administrators as well. As a court of last resort regarding work permits, you may want to seek out an officer of the court literally. Since appropriate judges often waive age limitations on on behalf of juvenile offenders, a similar request can be granted for your interns. Cultivate positive relationships with the key people in the criminal justice system if you have a need for waivers. And do not overlook advice about other regulations to be had from high school faculty who oversee vocational work placements.

"SELLING" THE INTERN

Employers have already been implored to hire the vet, the handicapped, members of minority groups, the rehabilitated criminal, and the hardcore unenployed. Do not be surprised if you encounter resistance to your request to hire the prodigy. This list might help a potential employer satisfactorily answer the question "Why should I take on this kid?"

- He/She can do things useful to our operation.
- Designing the assignment can be a useful exercise in evaluating some aspects of how things get done around here.
- It could be very interesting to have our work influenced by someone relatively innocent of experience.
- Good personnel are hard to find and if things work well maybe he/she would be interested in joining us once educational and experiential qualifications are met.
- It could be fun to help an eager young person learn under my direction.

* * * * * *

A group activity followed these remarks. After warming up by brainstorming a nonsense problem, small groups generated lists of tasks interns could be expected to perform in specific work environments.

SOME RESOURCES FOR YOUR CONSIDERATION

Chickering, Arthur W. Experience and Learning: An Introduction to Experiential Learning. New Rochelle: Change Magazine Press, 1977, 89 pp., $3.95.

This masterfully written little book displays how well-designed field experiences can benefit all participants. It is written with the post-secondary school setting as its focus, but the learning theory, practical examples of contracts and programs, and reasonable critique of potential and pitfalls are valid for the secondary school as well.

The National Student Volunteer Program. High School Student Volunteers. Washington: ACTION, 1972, 60 pp., no charge.

This useful pamphlet presents good advice for establishing and maintaining a service-oriented field experience program. Some of the project ideas and most of the hints for a volunteer program are applicable to interns or students under the direction of a mentor. Write National Student Volunteer Program, 806 Connecticut Avenue, N.W., Washington, D.C. 20525.

Ramsay, William R. The Role of the Agency Supervisor. Berea, KY: Work-Study Development Project, 1974, 15 pp., no charge.

This little pamphlet is a reprint of an article which appeared in the summer, 1974 edition of the Jossey-Bass quarterly, New Directions for Higher Education. In a few well chosen words, Mr. Ramsay lays out some practical considerations for the employer of an intern. Many of the ideas presented can aid you in organizing a useful experience for all parties. Write W-SDP, Berea College, Berea, Kentucky 40404.

Renzulli, Joseph S. The Enrichment Triad Model: A Guide for Developing Defensible Programs for the Gifted and Talented. Mansfield Center, CT: Creative Learning Press, 1977, 89 pp., $7.95.

Renzulli has produced an exceedingly useful book for those in the schools directly responsible for providing high quality learning experiences for the gifted and talented. The chapter on development and management of Type III enrichment activities is of particular interest in connection with work-learning. Even though the procedures were developed for elementary and secondary school teachers and their students, there is a striking resemblance to procedures used successfully for years with undergraduate and graduate interns in the Southern Regional Education Board Internships. Useful references are

included on conducting historical research, social science methodology, questionnaire design, and elementary statistics, all of which can aid first-hand inquiry. The book is produced by a small specialist publisher and might be hard to track down. The address: P.O. Box 320, Mansfield, Center, Connecticut 06250.

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THE KEY TO LEARNING– MOTIVATION

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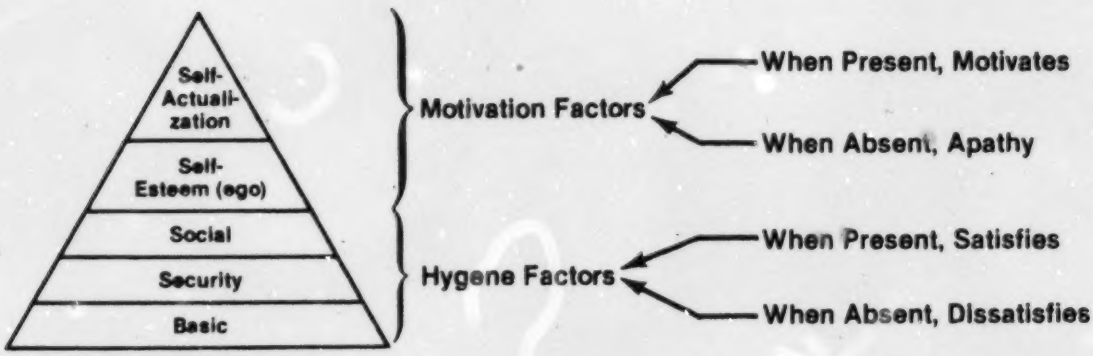
All of us have been faced with the problem of trying to motivate a child who for some reason appears to lack motivation. Perhaps the very fact that as educators we are continually concerned about motivation suggests that we have had difficulty finding ways to motivate such children. If we are interested in motivating students to do well, we are going to have to start looking at individual student needs. Motivation stems from an individual's personal needs. One is motivated to the extent that one's needs are being met in a given situation. The first step, then, in motivating the child is a full understanding of that child's needs, and how those needs may be met in the classroom.

Most of us are aware of the primary areas of needs that were discussed by Abraham Maslow, namely: basic needs (food, shelter, etc.), safety or security needs (the need to feel that one is secure), social needs (the need to belong to social groups), ego or status needs (the need to know that others care and the need to feel esteemed), and the self-actualization needs (the need to feel one has reached personal goal fulfillment). Maslow indicated that these needs form a hierarchy from the basic needs up through the higher level self-actualization needs.



Research by Herzberg, Hall, and others, however, has clearly indicated that in order to motivate others we must somehow try to bring them to the higher levels of ego and self-actualization need fulfillment. Herzberg found that when dealing with the lower level of needs (basic, safety, and social), we are dealing with what he called "hygene factors." As we provide that which is necessary to fulfill these lower needs, we help the student become more "satisfied," but we do not necessarily "motivate." If, for instance, a child is hungry, he is not going to learn until the lower need for food is satisfied. Once this lower need is fulfilled, the child then can move up to a higher need level in Maslow's hierarchy, but the child is not necessarily "motivated." Herzberg found, for example, that in the business world high salaries tended to make workers "satisfied" to the extent that they would stay on the job, but

salaries did not motivate. It was the higher need fulfillment of making the worker feel he was appreciated, the pat on the back, that "motivated" workers to do well.

Thus Herzberg would have us realize that it is in the area of "ego-esteem" as well as "self-actualization" where we find the true "motivating factors." This suggests that children must either have their lower needs fulfilled, or they must learn to compensate for them, before we can really get into motivating them. Thus before we can hope to motivate children, we must become concerned about their lower areas of need.

While we would hope that most children's basic and safety needs are met, there are times when a major problem threatens a child's security. For example, a death in the family or a divorce can cause the child to have serious security need problems. Here the understanding teacher will realize that such problems will have to be worked out within that child before one can expect the usual progress.

Children's social needs (a lower level of needs) also can play a role in trying to move the child up the hierarchy. Remembering that the child is motivated at the higher need areas, the social need to belong must be taken care of before we can fully motivate. Indeed one might suggest that teachers must somehow deal with the need that students have to "belong" before much learning is going to take place. It is only then that one can begin to motivate through helping children feel successful by building self-esteem through feedback and praise. Programs to help students build self-concept (a higher need) will be only partially successful if we fail to deal with the lower need of helping students feel that they "belong" to the classroom unit.

Today it is very much in vogue to talk about building the child's self-esteem. Indeed this does deal with Maslow's ego-status level of needs and thus does move the child up the hierarchy (again provided basic, safety, and social needs have been fulfilled or compensated for); but the hierarchy does not stop with ego level needs. There is a higher level, and a level where perhaps we are failing to fully motivate. In dealing with all children, and especially the gifted, we come across many who have a fine self-concept, and who have been fulfilled in the area of self-esteem, but who still are not fully motivated. They are hovering high on Maslow's hierarchy, just waiting, it would seem, to move into that rarified atmosphere of becoming self-actualized. Their needs, then, are those "self-actualization" needs which are at the top of the hierarchy; but which are often the most difficult for schools to fulfill. No amount of praise alone, no amount of interesting activities in and of themselves are going to motivate a child at this level. Some of the motivation must come from within the student, and some of it can come from the teacher. Before motivation can happen, we must fully realize what the child really needs. At this point the student needs to feel that he is reaching some personal goals. For the classroom to be at all meaningful, the school will somehow need to insure that the child will meet his personal goals through the classroom experience. In other words, the child will need to feel that his classroom experiences are helping him to become the person

that he hopes to become. A problem can occur if the school is only interested in making the student become what the school wants him to become.

I do not like to hear people constantly talking about "relevancy" in education, especially in the gifted program. For the gifted child, the child who hopes someday to blossom into a total human being, all things can be relevant. My feet have never touched a shore other than the west bank of the Atlantic, but for me Dover Beach is relevant because Matthew Arnold made it so. Edith Hamilton made mythology equally relevant for me as subtracting and adding in a supermarket line. I may never need to know that the movement of electrons through a wire cause an electrical current, but for my life it is relevent, as are hundreds of other tidbits of knowledge I have managed to gather. Therefore when I suggest that we must help the student to become self-actualized and help him to reach his personal goals, I hope that I am not suggesting that we must teach only what the student believes is relevant. Rather I am suggesting that we can help the student to see that the self-actualized person looks beyond the here and now. Helping the child to understand what his goals are, helping him to stretch those goals to include beauty, truth, and all of the other abstracts that lift a culture above mere existence, this surely must be part of the gifted program. We will motivate children as we fully understand, for ourselves, what it means to be self-actualized, and hopefully help move each student towards his own definition of "self-actualized." Perhaps nothing is more basic in this era of "back to basics" than being able to insure that schools include in the student's curriculum that which is necessary to insure that he fulfills his personal goals. If a student is "burning to write poetry" then surely poetry should be part of his educational program.

As a teacher, nothing is more motivating than to see a child begin to fulfill her destiny. As a student, nothing is more motivating than to see in the teacher a living example of the self-actualized person. If the teacher and student can share the adventure of learning, if there is a real thrill in reading a poem or conducting a science experiment, that thrill becomes not only contagious, but a truly motivating force in the classroom. If the teacher can find no personal thrill in the activity she is about to present, then it is better that the activity never be presented than to try and "fake" interest. One is not going to interest the child if one is not interested personally. Teacher enthusiasm is a superior motivator. If a subject is of no interest to the teacher, it is far wiser to bring in a volunteer who does find that area to be thrilling than to introduce a dull and lifeless unit into the classroom program, especially a gifted program.

Michael Pasternak (George Peabody College for Teachers) has suggested that learning is the process of collecting, codifying, and creating stimuli. All of learning consists of collecting what one hears, tastes, touches, smells and sees. Then one places that in some framework (often set by the school and altered by the individual). Finally one takes this codified stimuli and "creates." The student chips out a place for herself in the world through this creativity. For too many students that creativity becomes the art of "playing school well." For a few others it becomes building "a better mouse trap."

The motivation that tends to spur one on is basically internal, stemming from cognitive dissonance (a mismatch between what one knows and needs to know), psychological dissonance (a mismatch between how one feels and how one wants to feel), and curiosity. Thus one can help motivate another by trying to heighten curiosity, or by trying to help students overcome dissonance. The teacher must remember, however, that the purpose of bringing stimuli into the classroom, and of creating dissonance and curiosity, is to help the student create. Creativity must go beyond art, it must leap into science, social studies, math, language, and any other area where it may lead.

Creativity, then, becomes a primary need of one who is hoping to be a self-actualized person. It is the one trait that appears common to all truly self-actualized people. It becomes the cornerstone of the gifted classroom, as well as any good classroom. For knowledge is of little value if it does not lead a person forward. Memorizing the multiplication tables is of value only in that it enables one to create solutions to some of life's problems.

Research points to the probability that two of the most pressing needs of all children, but especially the gifted, are the need to create and the need to express love. Thus the teacher who is best able to motivate students may not be the most creative teacher, but rather the teacher who is best able to bring out the creativity of the students; not the teacher who is most loving, but the teacher who is able to help children find the avenues to express those emotions of caring, trusting, and giving.

Teachers can motivate by (1) helping insure the child will meet with some success, (2) helping create a warm and friendly classroom feeling tone, (3) helping increase the interest level of the classroom instruction, and (4) adjusting the stress level to the height where it motivates, but does not destroy. The teacher can motivate by filling the room with stimuli and helping the students order the stimuli in such a fashion that they can create new stimuli. Above all, the teacher can join with the students in the adventure of becoming the person she hopes to become. Is that not the real purpose of education for all of us--teachers as well as students?

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STUDENT-INITIATED AND STUDENT-EXECUTED CURRICULUM: THE SIU O-100 APPROACH

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Educators in general, and teachers in particular, are continually searching for more effective methods to motivate students. Some have adopted more mechanistic means through the utilization of behavioral engineering to lead learners to success and task mastery. Others have attempted to increase student motivation by placing the learner in a stimulating environment with supportive teachers, to provide assistance and encouragement. Still others have gone back to the drawing board to reflect upon the findings of motivational researchers and learning theorists in an attempt to build a better mouse trap. This is the position in which we found ourselves.

We were convinced that the theoretical postulations and the research of persons like Piaget, Bruner, Torrance, Maslow, and Frymier provided a confluent basis for creating an effective instructional strategy. Piaget (1952) believes that each individual must be active in discovering and structuring reality for self. Each person tends to move toward a state of cognitive equilibrium, to adjust gradually to any change in the environment. Maslow (1968), like Piaget, held that individuals are active inquirers and manipulators of their environment, striving to satisfy their curiosity, expanding their knowledge, and improving themselves. Maslow placed the need to "know and understand" at the highest level in his motivational hierarchy.

Bruner (1960) developed classroom procedures for stimulating inquiry and discovery, as opposed to teacher presentation of materials for students to try and assimilate. Bruner, like Frymier (1973), recognized the need to develop and stimulate students to become producers as well as consumers of information and experiences. Bruner's students were not simply given information and sources--they were told to develop their own understanding and to draw inferences. The emphasis was on the process of arriving at answers through discovery.

Utilizing these concepts, we set about to make increased use of discovery and creativity to stimulate learning. To learn creatively, a person must become aware of gaps in knowledge, to perceive discrepancies, to recognize problems which call for new solutions. Then they formulate the problem, operationalize the terminology, collect information, and search for solutions. They advance by making guesses concerning possibilities, testing, modifying, retesting, and perfecting the hypotheses. Finally, as Magoon and Garrison (1976) observe--when the "gaps are bridged" the results are generalized, applied, evaluated, and communicated (p. 215, 272-76).

It has been generally accepted, since Thorndike (1906) formulated his "laws of learning," that things which are pleasurable tend to be repeated.

This motivational strategy was also accepted and presented nationally by G/C/T, May/June issue, 1978, the NAGC-Convention in Houston, Texas, November, 1978, and internationally by the World Council for Gifted and Talentec Children, Third World Conference, Jerusalem, Israel, in July 1979.

Hence, those things that capture our interest will probably receive our attention according to our degree of arousal, expectancy, and attendant satisfaction. Therefore, as alert educators we should strive to identify, clarify, and facilitate the student's inquiry into areas of curriculum interest. As Magoon and Garrison (1976) noted, "artifical motivation will not be necessary if the teacher can relate the materials learned to the child's experiences and interest" (p. 220).

It is with these convictions that we began to formulate an instructional strategy for gifted and creative students, a strategy based upon student interest. Our objectives were to:

1. Integrate cognitive, affective, and psychomotor objectives in order to reinforce intellectual, emotional, and physical learning.

2. Implement non-directed inquire teaching.

3. Strengthen team work and leadership training.

4. Augment democratic decision-making.

5. Allow transaction and interaction between teacher, students, and community resources.

6. Permit students to participate in curriculum planning, giving direction, movement, action, and life to behavioral objectives.

7. Intrust students with a responsibility for learning as an ongoing process.

8. Show creatively gifted students that "excellence" and "perfection" are aspiring values of human endeavor.

An overview of the sequence of activities for implementation of SIU 0 - 100 may be found on pp. 48-49 of the May/June, 1978 issue of G/C/T.

The label, SIU 0 - 100 reflects the very nature of this exciting strategy--where students identify their individual interest, then through a needs assessment technique they agree upon a consensus project that they wish to undertake. The 0 to 100 represents a beginning from scratch, an empty classroom and often little knowledge, and moving to 100% or excellence with reference to individual and/or group projects.

There is an important difference between the SIU 0 - 100 approach and other "interest units" which have been reported. In the SIU 0 - 100 strategy students must assume primary responsibility for initiation and and execution of the learning experience. This principle is adhered to from the most menial, mundane task to the highest, most complex, and pleasurable one. They recognize that the teacher is always available to answer questions (generally with another question), to offer suggestions (usually with an inquiry),

and to help students formulate their plan of action--but the responsibility for execution is solely theirs. They locate and secure the forms, material, and the information resources; they locate and invite the resource people, make the schedule arrangements, and handle all protocol; and they procure the supplies and equipment necessary to carry out their project.

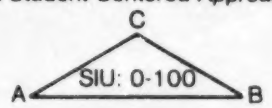
In the past two (2) years students involved in the SIU 0 - 100 approach have chosen to study and produce in areas ranging from animated film production to newspaper editing to radio-controlled model airplanes. Last year, Monday's class produced a super 8, animated film, "Star Wars II"; Tuesday's class wrote an anthropological newspaper, "B.C. Living"; Wednesday's class produced a mystery show, "Beer, Chess, and Puzzles Don't Mix"; and Friday's class studied German and made a TV production called "The German Timeline."

Student reaction to the SIU 0 - 100 approach has been unabashedly enthusiastic and they are very complimentary regarding their learning experiences. A sample of their typical comments: "I enjoyed the 0 - 100 approach because we were responsible for our own learning"; "I enjoy working in this class with my classmates; we make all the decisions!"; "I enjoy this method because I learned to be responsible and independent"; "The 0 - 100 approach, which is starting from scratch and going until you finish the project, is terrific and I think it will go far!" It should be noted that a majority of the students expressed curiosity concerning the reason why this approach to education is missing in their other classes.

The validity of the 0 - 100 concept is evidenced by the student's acceptance of this educational challenge and their excitement relative to their personal achievement. Their enthusiasm has also impressed us with the effectiveness of this procedure. The students have been exposed to a teaching method which allows them to "take charge" and be responsible to self, to others, and to the educational challenge which they have selected. They have been quick to realize that they will not be spoon-fed and consequently have accepted responsibility for the ongoing process of "learning to learn." And perhaps more importantly, for contemporary citizens, they have come to recognize the value of excellence and perfection as goals truly worthy of human endeavor.

SYNOPSIS: THE SIU 0-100 APPROACH

ASSIMILATION CHART FOR SIU 0-100: THEORY

AIMS	1. Holistic maturation: Confluent thinking. 2. Student-controlled learning: Problem solving. 3. Proficiency: Meta-cognitive skill development. 4. Self-efficacy: Independence. 5. Democracy in action: Decision-making.
TYPES OF LEARNING	1. Self-learning based on relevance of student-initiated tasks and problems. 2. Self-doing based on students' needs and interests. 3. Self-actualization based on self-learning and self-doing. 4. Dialectical synopsis: A Student-Centered Approach  A. Self-Learning B. Self-Doing C. Self-Actualization
METHODS	1. Method of self-learning: Self-expression. 2. Method of interest: Satisfaction of students' needs. 3. Method of individualization: Self-discipline. 4. Method of socialization: Participatory democracy. 5. Method of apperception: Becoming: 0-100. 6. Psychological Laws of Learning: Considerata of individual differences in gifted child population.
CONTENT	1. Interpersonal collaboration: Teacher and student as learners. 2. Interest curriculum: Self-initiated, self-imposed, self-reinforced, and self-executed learning. 3. High cognition: Content shifts to analysis and problem-solving. 4. Epistemological continuum and challenge. 5. Self-designed "climate" and "space" for learning.
AGENCIES	1. Past: a. Pestalozzi schools. b. Fellenberg Institutes. c. Froebellan kindergartens. d. Herbartian seminars. 2. Present: a. TAG-program, Virginia Beach, Virginia, U.S.A.: Jellen. b. Educational Psychology in gifted education: Old Dominion University, Norfolk, Virginia, U.S.A.: Magoon-Jellen. c. DEG (Differential Education for the Gifted): University of Virginia, Charlottesville, Virginia, U.S.A.: Ward-Jellen.

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SYNOPSIS: THE SIU 0-100 APPROACH

ASSIMILATION CHART FOR 0-100: METHODICAL ANALYSIS

METHODS	PSYCH. BASES & LAWS OF PROCEDURE
THE METHOD OF SELF-LEARNING	1. Psychological Basis: Learning derives from the students' self-initiated stimuli. 2. Law of Procedure for Gifted Student: Self-imposed, self-encouraged, and self-reinforced learning. 3. Laws of Procedure for DEG-Teacher: Facilitator and questioner of student-initiated/executed curriculum. Omits traditional teaching and instruction.
THE METHOD OF INTEREST	1. Psychological Basis: The intensity of the learning response depends upon students' needs and interests. 2. Law of Procedure for gifted Student: Self-imposed responsibilities show interest, purpose, and relevance to insure continued motivation. 3. Law of Procedure for DEG-Teacher: The leading-out (educere) and cultivation of students' interests.
THE METHOD OF INDIVIDUALIZATION	1. Psychological Basis: Learning responses allow for individual differences in capabilities. 2. Laws of Procedure for Gifted Student: Self-discipline, responsibility, and independence by his/her and/or peer consent for academic-creative and social maturation. Maturation for the gifted student: Continued intrinsic perfectability and self-actualization. 3. Law of Procedure for DEG-Teacher. Facilitates learning according to individual potentialities.
THE METHOD OF SOCIALIZATION	1. Psychological Basis: Every response has its social implications: "No one lives unto him/herself." 2. Laws of Procedure for Gifted Student: Democracy in action and decision-making. The democratic child. 3. Law of Procedure for DEG-Teacher: All learning must be developed in natural, humanistic, and democratic social settings.
THE METHOD OF APPERCEPTION	1. Psychological Basis: The nature of the learning response depends upon past experience and present frame of mind. 2. Law of Procedure for Gifted Student: Stimuli and responses refer to student's interests. 3. Law of Procedure for DEG-Teacher: Stimuli and responses refer to experience and mental set of the gifted student.

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17

THE IDENTIFICATION OF RESOURCES FOR INDIVIDUAL GIFTED STUDENTS IN GRADES 3-8

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PROJECT OVERVIEW

Introduction

The Gifted Science Project is federally funded under ESEA, Title IV-C to identify science resources for individual gifted students and their teachers, Grades 3-8.

The resources are matched with objectives and topics in the Montgomery County Public Schools (MCPS) Program of Studies. They include information on scientists, scientific agencies and laboratories, published materials, and special activities such as science fairs and seminars. The resource descriptions are organized and presented in the Project Resource File. There is no curriculum development associated with the project.

The resources found in the Project Resource File will provide an individual gifted science student an opportunity for in-depth exploration within areas of his/her interest or aptitude. As a result, existing science resources for the gifted will be coordinated and made available to an individual gifted student and his/her teacher.

Three-Year Project Calendar

The project is planned for three years of funding. During the first year, 1977-78, the staff collected, organized, and classified science resources. These resources were correlated with MCPS science instructional objectives. The resources were placed in a microfiche (a form of microfilm) retrieval system. During the second and third years, 1978-80, the system has been installed on a trial basis in 15 public schools and one Catholic school. Prior to the tryout, the project staff showed teachers and other staff how to use the Project Resource File. During the tryout, evaluation studies will be conducted and the data will be used to revise the project materials.

At the conclusion of the third year of the project, 1979-80, the Project Resource File will be made available countywide. Sample project materials will be prepared for dissemination to interested persons.

DEVELOPMENT ACTIVITIES

In an effort to obtain information useful for project development, approximately 300 letters were sent to individuals in the science and gifted education fields and to national, state, and local directors of projects with a gifted science component. Practically all of the information and sample materials received were administrative or pedagogical in nature. Many were concerned with characteristics and identification of the gifted and task

force reports on local efforts to improve the education of the gifted. The few curriculum units sent to us were not useful for our project. The correspondence efforts did not produce a useful set of criteria for selecting published materials for gifted students.

Nine resource categories were operationally defined by the project staff. These are Activity; Award or Competition; Career Information; Course, Lecture, or Seminar; Library; Mentor; Project Ideas; Science Processes; and Visit. These resource categories provide a convenient structure for classifying resources for the Project Resource File.

OBTAINING RESOURCES FOR THE PROJECT RESOURCE FILE

Outside Resources

Possible outside resources for project participation were identified from a variety of sources. These sources included state and local directories of community services and science or science-related institutions, local directories of individual scientists and engineers, and speaker's bureau lists from local organizations.

The project staff developed procedures for contacting outside resources and for confirming their participation and inclusion in the Project Resource File. Potential project participants were asked to select the science instructional objectives they preferred to support and to approve a description of their contribution prior to the publication of the Project Resource File.

Published Material Resources

Published materials were selected for inclusion in the Project Resource File if they matched one or more of the definitions of the resource categories listed above. Published materials were examined and annotated by the project staff and matched with grade level(s) and science instructional objective(s).

IN-SERVICE TRAINING

An in-service manual was developed by the project staff to facilitate the use of the Project Resource File. The manual includes a brief history of the project and a rationale for providing schools with a resource file for gifted science students in Grades 3-8. It also explains the contents of the Project Resource File, the procedures a teacher and media specialist will follow when using the file, and the reports associated with project evaluation.

An in-service program on the project was held prior to the tryout. A teacher, a media specialist, and an administrator from each tryout school were invited to attend. Additional in-service programs will be conducted at the school level upon request from school personnel.

PROJECT EVALUATION

The project evaluation objectives include determining any change in the amount of utilization of resources for the instruction of gifted science students, determining the types of student experiences with resources, monitoring student attitudes, monitoring student satisfaction with resources, monitoring teacher satisfaction with the project's management and services, and conducting a cost-effectiveness study. The data collected during the tryout period will be analyzed and will be used to revise project materials and their implementation.

FINAL PRODUCTS

The final products of the project will include a description of the project's history and development activities, an in-service manual, an evaluation report, the revised Project Resource File, a dissemination package, a bibliography of the materials received from other sources and projects, and a bibliography of the published materials included in the revised Project Resource File.

Correspondence concerning the project should be sent to Dr. John R. Pancella, Project Director and Coordinator of Secondary Science, Montgomery County Public Schools, Rockville, Maryland 20850.

EDUCATING THE GIFTED AT PLAINS –AN EXPANDED PROGRAM

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Leaders in the field of gifted education are speaking of an "expanded concept of giftedness." In 1965 Paul Torrance wrote about ". . . the emergence of a new and challenging concept of giftedness. This concept stresses the importance of emphasis upon potentiality rather than upon norms and single measures of giftedness. It involves movement away from concepts of a single type of giftedness and fixed intelligence and beliefs in predetermined development." (1965, p. 11)

Frank Williams has broadened this concept to include visual and performing arts, psychomotor skills, career development, leadership, etc. He views the expanded concept as "coordinated effort between all domains of human development." (1970) Students may be gifted in areas other than the academic and intellectual, and schools are responsible for providing opportunities in these areas.

The gifted program at Plains Elementary School in Timberville, Virginia is based on this expanded view of giftedness. Built and organized as an open concept school, Plains operates on a "open" philosophy. This means that children are given opportunities to develop skills and understandings according to their individual needs, whether above or below grade level expectations. This philosophy is ". . . a way of thinking about children, about learning, and about knowledge.: (Barth, 1972, p. 55)

THE IMPORTANCE OF THE REGULAR CLASSROOM

In reviewing literature in the area of gifted education, one finds that many impressive and worthwhile projects for the gifted are being implemented in elementary schools throughout the country. In most of these programs, students are involved for a limited amount of time, ranging from one class period per week to one or two days per week.

The basic component of the program at Plains is the regular classroom. We feel that the giftedness of every student deserves to be challenged and nurtured continuously - especially in the setting where the student spends the majority of his/her time.

At Plains, students within a pod are grouped heterogeneously in home bases, where they are taught in all subject areas except physical education and music. Here the teacher learns to recognize and understand each child's strengths and weaknesses in the skill areas. This understanding contributes to effective teaching and learning in the areas of social studies, science, and health. In this setting, the teacher can creatively integrate learning experiences. Social studies concepts find expression in the language arts, and math skills are often learned during a science lesson. The skills which are being emphasized in reading lessons can be reinforced as they are related to reading in social studies. Because the teacher is aware of students' developmental level in the skill areas, he/she can provide experiences and instructional materials appropriate for each child. With these provisions, the gifted child is stimulated and challenged, rather than becoming bored.

THE LEARNING ENVIRONMENT

The learning environment is crucial to the welfare of gifted students. At Plains, where the gifted program begins in the classroom, teachers spend a great deal of time equipping their home base areas with charts, maps, almanacs, dictionaries, globes, and other pertinent materials. (Most of these resources are available from the media center within the school.) Children's work is displayed on the walls and bulletin boards. Learning centers and interest centers are set up to reinforce skills or to arouse interest and stimulate creativity. There are nooks and corners for independent reading and "meditating." Desks are usually arranged in small clusters rather than straight rows. Living plants are found in most areas, as well as a variety of items brought in by the children.

There is an ebb and flow of ch-ldren moving purposefully to the library, to learning centers, or to work on special projects. They are trusted.

GROUPING PATTERNS

At Plains, grouping for instruction is considered a key factor in providing for the needs of every child. For optimum development in the skill areas of reading and math, students function in small homogeneous groups. In the areas of social studies and science, a greater amount of time is spent in the larger home base group. Both similar and diverse groupings may be used in simulations, science experiments, social studies, projects, drama, and other activities. Frequently, pod meetings are scheduled, where the five or six home base groups within a pod gather on the floor in a central area. Here, children of different ages share experiences, show their treasures, perform, sing together, listen to community resource persons, or discuss common concerns. Teachers are encouraged to use the grouping pattern which best carries out the instructional purpose of the activity.

One benefit which seems to have emerged from allowing children to function in various types of groups (age, ability, interest, etc.) is a strong "family" feeling within the school, in spite of the school's comparatively large size (nearly 900 students). By providing experiences where children of different abilities and ages can work together, we feel that we are contributing to their social development and their preparation for adult life where they will often be working with people unlike themselves.

TEAMING FOR INSTRUCTION

The type of teaming used at Plains is difficult to describe because of its spontaneity. Each pod has its team of five or six teachers who work together closely in organizing and planning for general operation of the pod. Team meetings are held regularly to discuss problems, objectives, special projects, policies, etc. Little time is spent in planning units of study, since these are usually planned individually or by two teachers who wish to work on a unit or project together. This sub-teaming seems to be an effective and efficient way of organizing and allows for spontaneity.

We have found that human relations is the basis for the success of team operation at Plains. A teacher is not only a member of a sub-team and a pod team, but is also a member of the total school team. Perhaps the open concept design has contributed to the strong "family" feeling among staff members as well as among the students.

ACTIVITIES BEYOND THE CLASSROOM

In order to provide an adequate instructional program for gifted students at Plains, we feel it is essential to extend the gifted program beyond the classroom. There are special activities and resource teachers for low ability students. It is important that we also provide special activities and teachers for high ability students. There is, however, one major difference. For gifted students, the "teacher" concept is expanded to include the community and the wider world itself. These resource "teachers" are unlimited and do not present a financial problem. They are <u>there</u> to be used and explored. Planning and coordinating the use of such resources does take time, and at Plains, most components of the gifted program have been initiated and coordinated by the teachers themselves, with strong support from the administration and the community.

In most cases, these activities are not limited to children with I Q's above a certain point, but are for all students who show special interest or ability in the areas being explored. This aspect of gifted education at Plains is called the "Discovery Program."

Following are examples of some of the activities included in this program:

1. A bi-weekly New Quiz, patterned after College Bowl Quiz. Any students who are interested in current events may participate as team members or audience.

2. A Stamp Club which meets once or twice during each month.

3. A Math Club for a limited number of students with high math ability.

4. A radio program called "Youth News," aired regularly at local station. Students report news from the school. Participants are chosen on basis of interest and ability in public speaking.

5. A chess tournament for interested chess players in upper grades.

6. Drama workshop directed by students from local university.

7. Writers' workshop conducted by local free lance writer.

8. Workshop on energy use in the United States. Directed by resource person from V.P.I. who brought an energy simulator. A select group of students participated.

9. Workshop on mini-computers arranged through local college. Limited to small group of students with high math ability and special interest in computers.

10. Field trips - some to local areas of interest and others to places such as Smithsonian and the University of Virginia. This trip usually includes all academically gifted students in grades 4 and 5, plus others who show special interest or ability in areas being studied.

Students with psychomotor abilities may become involved in a school-wide gymnastics program, and each spring they present their skills at a scheduled P.T.A. program. After-school training in soccer and basketball are also available to those in 4th and 5th grades.

Students may participate in presenting a musical each year - one for upper grades and one for primary grades. Solo parts are open to any student who wishes to try out. Students in 4th and 5th grades who have talent in music may become members of Plains Singers, a group which practices regularly and gives programs in the community.

Leadership opportunities for students are available in the Student Council Association. Committees sponsor a wide variety of activities throughout the year. Examples: talen show, poster contests, school newspaper, school yearbook, money raising campaigns, assemblies, clean-up of grounds, and a book fair.

IDENTIFICATION OF GIFTED STUDENTS

In a school program which seeks to recognize and nurture the needs and gifts of every child, identification of the gifted takes on a new meaning. According to Walter Barbe, "The good gifted program, the right gifted program, has a major concern for all kinds of giftedness. And I don't think that excludes anyone. The very best test of giftedness continues to be intelligent experienced observation. Don't pretend that a child must take a test before the experienced observer knows because it just isn't true." (1978)

The identification process at Plains is a continuous search for gifts in children. Statements such as, "He is in the program," and "She is not in the program," are relatively meaningless.

We do make a list of students who have rated high on intelligence test scores, but we also maintain lists of students who appear to have outstanding interest or ability in the areas of history, science, current events, acting, drawing, etc. Most of the available test scores are from group tests, which are often not reliable. A very bright child may score low because he doesn't feel well or doesn't like to take tests. A bright child with a reading disability will naturally score low. When we make a new discovery, we add to our lists.

We recognize the value of test scores in spotting a gifted child who isn't performing well in school. We are prompted to search for factors which may be causing the discrepancy. I Q test scores may help to make teachers aware of students who need additional challenge in the classroom and beyond.

We do not publicize a list of intellectually gifted students because our program is not limited to these students. We speak freely with parents about their child's gifts, and ask for their suggestions and concerns. We do not send letters saying, "Your child is a mentally gifted minor." Consequently, we do not need to establish a cut-off point about which a child is considered gifted and below which he is considered not gifted. Since our program does not exclude anyone, many of the usual problems are eliminated. Parents of highly intelligent children seem to be especially supportive and appreciative of the school program.

In our school we have found that children with special talents and interests tend to gravitate to the library, searching for information. As a result, the librarians play a major role in helping to identify children with gifts, and in providing materials for them. They also suggest and order materials for teachers to use with gifted students.

CONCLUSION

The gifted program at Plains Elementary School is based on an expanded concept of giftedness. All kinds of gifts are recognized as valuable, and the development of the total person is basic.

At Plains the gifted program begins in the classroom where children are challenged with a creative learning environment. The program extends beyond the classroom and uses the resources of the community and the larger world.

It has been difficult to describe this program because of its spontaneity and its complex network of human relations. We recognize that the program is evolving and there is much room to improve in all areas, but we feel that we are at least heading in the right direction.

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CAREER EXPLORATION WITH GIFTED AND TALENTED ELEMENTARY STUDENTS

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CAREER EDUCATION: AN OVERVIEW

Career Education in the elementary grades consists of an awareness program which is designed to enhance each child's knowledge of the world of work. Gifted and talented students, with their greater creativity and intellect, also need to have their horizons expanded so that their career choices and options can be fully explored during the formative years. In later time frames when decision making will have much importance in shaping their lifes' work, there will be a broad basis of information upon which to make those all important career choices. The elementary grades are the logical place to begin the rudiments of career awareness as the developmental program is sequential by design.

The term Career Education has evolved from a vast collection of studies including guidance, vocational training, life skills, economics and personal government. The phrase was first coined by Commissioner of Education Sidney P. Marland in the early 1970's. In an era of declining employment, unrest among the young, and chaos in the American economy, the commissioner's concerns for youth entering the work force were many. His contention was that the schools were devoid of practical training which would make students aware of the realities of the world of work.

In its infancy Career Education was intended to be a life long study for all persons. Job trends and outlooks, coping skills, and techniques needed to obtain employment were only a small component of this study of long duration. Each individual has employment but also has a life of liesure. As one matures the career and the life style could change drastically just as our environment is being altered by technology. The jobs available in today's market could conceivably be non-existant in several years. By obtaining a good understanding of self, individual aptitudes, and a general overview of employment opportunities, it was hoped that the traumas of "future shock" would not befall students who had been career educated.

With the assistance of federal funding, a sequential curriculum to implement Career Education into existing school programs was devised. The developmental process was designed to commence in the early elementary grades with an awareness program which would introduce students to workers in their families and communities. As the children progressed through the grades their knowledge of people in the work force would be expanded to include careers available within their state and nation. The study could be incorporated into any subject field. The newspaper reporter was as vital to the Career Education of the language arts student as the nuclear scientist was to science.

As the child entered the intermediate grades his/her awareness advanced to an exploration stage. By taking interest inventories, the student was beginning to formulate likes and dislikes in different career clusters. A further delving into areas of indiviudal interest would open new vistas into the depth of jobs in major fields such as medicine where the ladder of

proficiency would range from orderly to surgeon. As in earlier years though, the student is still being introduced to many different workers in all subject areas. A child's mind will change numerous times before a final career choice is decided upon. The options available cannot be narrowed at the crucial early teen years.

At the next juncture the student receives training in the preparation phase of his/her career development. Each student is expanding his/her growth in establishing an entry level salable skill that could afford the opportunity to gain employment if one were to leave high school or obtain a summer position. By investigating all possibilities, the student may decide to continue with formal education or training which also is included under the Career Education umbrella. Making the correct college selection is as vital to the student's eventual success as choosing the vocation most suited to his/her talents and abilities.

As stated previously, Career Education does not terminate upon graduation from high school. Many adults are faced with mid career crises when jobs are eliminated or phased out of existence. With the increasing numbers of career counseling services and job skills courses that are presently being offered in adult education, it is obvious that the process of career development is a life long study.

ACTIVITIES FOR ELEMENTARY STUDENTS

Community Resources

The least expensive and most readily available resource to tap to begin a Career Education program is to utilize the community. Each school district has a wealth of parents who are employed in a variety of jobs. Bringing moms and dads into the classroom to address the youngsters and to discuss how a day is spent away from home is an excellent stepping stone to invite other community workers in to talk with children of all ages. In most instances speakers are very willing to share their job experiences with students, especially when they are viewed as potential employees. Colleges, industries, and some civic organizations compile listings of speakers who are available upon request with no honorarium required. A teacher can talk for days about a cartographer but children cannot totally appreciate the career until a genuine mapmaker visits the class to discuss the profession.

The gifted and talented youngster benefits measurably by having the opportunity to meet people in different forms of employment. Small groups of students with similar interests learn much from discussions with an individual actually employed in a job that the children might have been introduced to in a related project at school. The opportunity to meet with an adult and discuss his/her work brings a great degree of relevance to the task completed in the classroom.

The community resources are also utilized by taking field trips to factories, offices, or places of business. By viewing machines, procedures,

and people actually working on site, the child's knowledge of particular careers takes on new dimensions. The most beneficial field trips are those that are taken in small groups ranging in size from one to six. The children are given royal treatment and have a better opportunity to have their questions answered and to have an actual hands-on experience. This small group approach has been especially successful with gifted students as the community member's time can be more devoted to each child's interests while on tour.

When bringing speakers into the classroom or taking field trips into the community are not possible, there is a third option. The telephone company has a conference phone which can be plugged into any phone jack available on a rental basis. The conference system contains two microphones and a loud speaker which transmits the voice of the person being called into a classroom. Children can interview individuals and become more knowledgeable about their jobs by asking them pre-determined questions. The possibilities are unlimited as the whole country becomes a potential target for phone conversations. The captain of a San Diego whale watching ship provided a most informative talk to a group of 5th graders who had been studying a whaling unit.

Interviewing community members at their places of business can be accomplished by older students as a unique homework assignment. The contact with the worker could be part of any gifted and talented project to add a Career Education component to any assignment. After compiling a list of appropriate questions, the student can make an appointment to visit with a person employed in a related field. The interview could be taped so that a tape library of interviews could be accumulated. In more elaborate style a portable VTR unit could be taken to the place of business to record the interview for other students to view.

The community has a great stake in the education of its children. The classroom can offer a limited amount of first hand knowledge when compared to a real life situation. To promote Career Education either the children must get out of the classroom and into the community or the community must come into the classroom.

Simulations

An activity that has proven to be highly successful in allowing students to learn about different careers has been the simulated experience. The classroom is converted into an office, a hospital, a florist's shop, or a beauty parlor. Children role play the various jobs and so experience the skills involved in performing certain tasks. Simulations are most successful with small groups so that each child has an opportunity to role play each job.

The simulated experience is not confined to the younger grades by any means. In the intermediate years children can bring their learned experiences to the jobs that are role played. For instance, a restaurant could be established in a classroom. An interdisciplinary study would be

necessary to determine decoration of the interior of the restaurant, costs of production, the planning of nutritional meals, actual preparation of foods and the operation of the eating establishment for the enjoyment of other students. By role playing various jobs, the children could experience the relation of their school subjects to the business in such areas as math, art, economics and health. An added benefit would be the opportunity to use good manners with customers and to develop a sound working relationship with fellow restaurant employees.

For greater authenticity the simulation should utilize actual tools wherever possible. Donations from area businesses are a good source of real items for classroom use. The time involved in setting up this experience situation can be as great as the effort to make the simulation real. Children have marvelous imaginations so that paper hats and homemade tools can provide an equally enjoyable session.

Shadowing

As students develop through the years and build upon their career awareness, individual interests begin to have more relevance. At an early age the child has determined through self exploration that he/she likes vanilla ice cream and does not care for lemon lollipops. Subject areas enter into each student's realm as more time is spent in school. By the intermediate grades the child had developed definite likes and dislikes and can begin to explore career opportunities along those lines. An interest in social studies could spark an investigation into careers in that area. Informal interest inventories can be administered as early as third grade to enable the child to begin to develop the decision making process as regards self exploration.

By sixth grade the student has developed enough skill in taking interest inventories so that the Job-O can be administered with relative ease. The Job-O asks nine basic questions such as how many years do you want to stay in school, do you like to work with your hands, and the like. Upon completion of the inventory the child matches his/her responses with those characteristic of 150 broad career categories. The matches are tallied for each career and the three with the highest number of matches are determined. The student then investigates these jobs in depth to discover training required, duties performed, and salary earned. The student selects one of the three careers that interests him/her the most.

The Job-O selection is then used to provide a shadowing experience for the student. In shadowing the child individually visits with a member of the community who is employed in the career in the student's interest area. The child "shadows" or works along with the community member to learn by actually being involved in the tasks at the business site.

Prior to the child's visit the investigation into the career takes on great importance. The research involves studying job briefs, using the

occupational microfiche file, and writing letters to organizations or unions requesting information. After becoming knowledgeable about the career, the child completes a personal resume complete with references. When the shadowing experience has been arranged, this resume acts as a means of introduction for the student and is forwarded to the person to be visited.

On the day of the shadowing the student is transported to the place of business, introduced to the cooperating workers, and remains for a half day to "work" at that person's job. During the course of the visit, the student has many questions to ask his/her "employer."

In the shadowing process some of the children were involved in fingerprinting, using architect's tools, broadcasting at a radio station, and assisting in an operation at a veterinary clinic. The experience was highly beneficial in affording students the opportunity do work one-to-one. The cooperating business people were extremely anxious to assist in this project. The children were aided in developing positive work attitudes also.

As a follow-up activity the children discussed their trip at length with the career specialist; made a presentation to their classmates describing the experience; completed a short information sheet about particulars; and wrote a thank you note. The ensuing enthusiasum and discussion among the students was evidence enough that the visits were successful. The children gained great insights into the working world as well as receiving individual attention from the business person.

Literary Magazine

A special project that has proven to be very popular among the students is the production of a literary magazine. Children in all elementary grades make contributions to Kids Korner by submitting original stories, poems, and art work for consideration. An editorial staff meets to select the best works for publishing. The staff then edits the stories to ready them for the typist. After the layout is completed, the printer begins the task of running off the copies, which are then collated. The magazine is advertised and sold. The production, with the exception of typing, is done completely by the students.

Prior to the publication of the first issue each year the older students are given an opportunity to buy stock in a corporation called Kids, Inc. A stock certificate is issued to each shareholder. The money is used to purchase materials for the publication of the magazine.

Workers are selected for the different staffs after they have completed job applications and are interviewed. Each staff has a leader who is responsible for the employees.

The magazine is published four times a year. The money that is collected is returned to the stockholders in the form of profit after all expenses are paid. In past years the children have realized a profit as great as 300%!

Career Education has limitless possibilities for classroom use. All children, including gifted and talented youngsters, derive much enjoyment from the activities and are learning practical applications for their school subjects. But most of all children view Career Education as fun and are most eager to participate.